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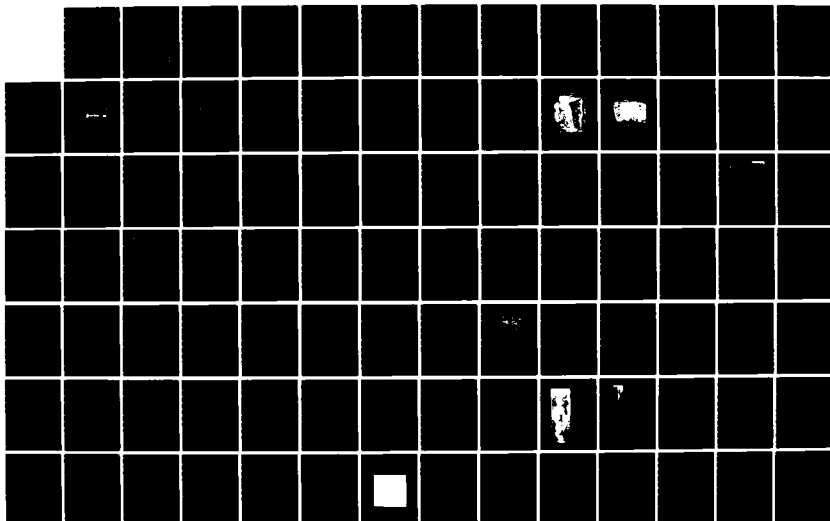
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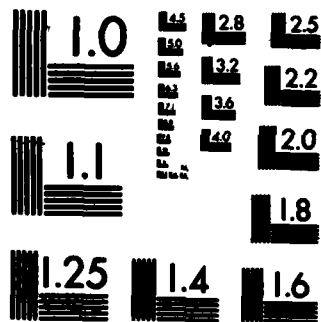
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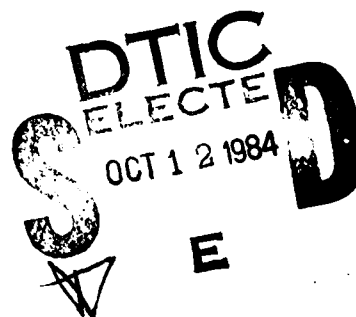
Appendix II

HISTORICAL OVERVIEW OF THE STUDY AREA

by

Lois J. Roberts

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report presents the results of archaeological research undertaken in support of the construction of MX missile test facilities on northern Vandenberg Air Force Base, Santa Barbara County, California. During 1980-1982, all lands potentially subjected to construction impacts (the project area) were surveyed, and test excavations took place at 24 sites in order to define their boundaries and assess their significance. At eight of these sites excavations were more intensive in order to collect additional information on site significance and to mitigate (Cont'd on reverse)		

mitigate unavoidable impacts.

In addition to presenting the results of the analyses of the different classes of items in the collections, the report includes interpretations of the place of the sites in regional subsistence-settlement systems. All sites investigated appear to have been used by the Purisimeno Chumash Indians and their prehistoric predecessors within the last 2,000 years as seasonal residential bases or short-term occupation sites. Hunting terrestrial game appears to have been the dominant activity undertaken in the project area, as reflected in the high proportions of chipped stone artifacts in the site collections. Although a two-part chronological sequence for the sites is not firmly grounded, there is evidence indicating that the earlier inhabitants of the project area were relatively more mobile in their settlement pattern than the later inhabitants.

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Appendix II

HISTORICAL OVERVIEW OF THE STUDY AREA

by

Lois J. Roberts

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INTRODUCTION

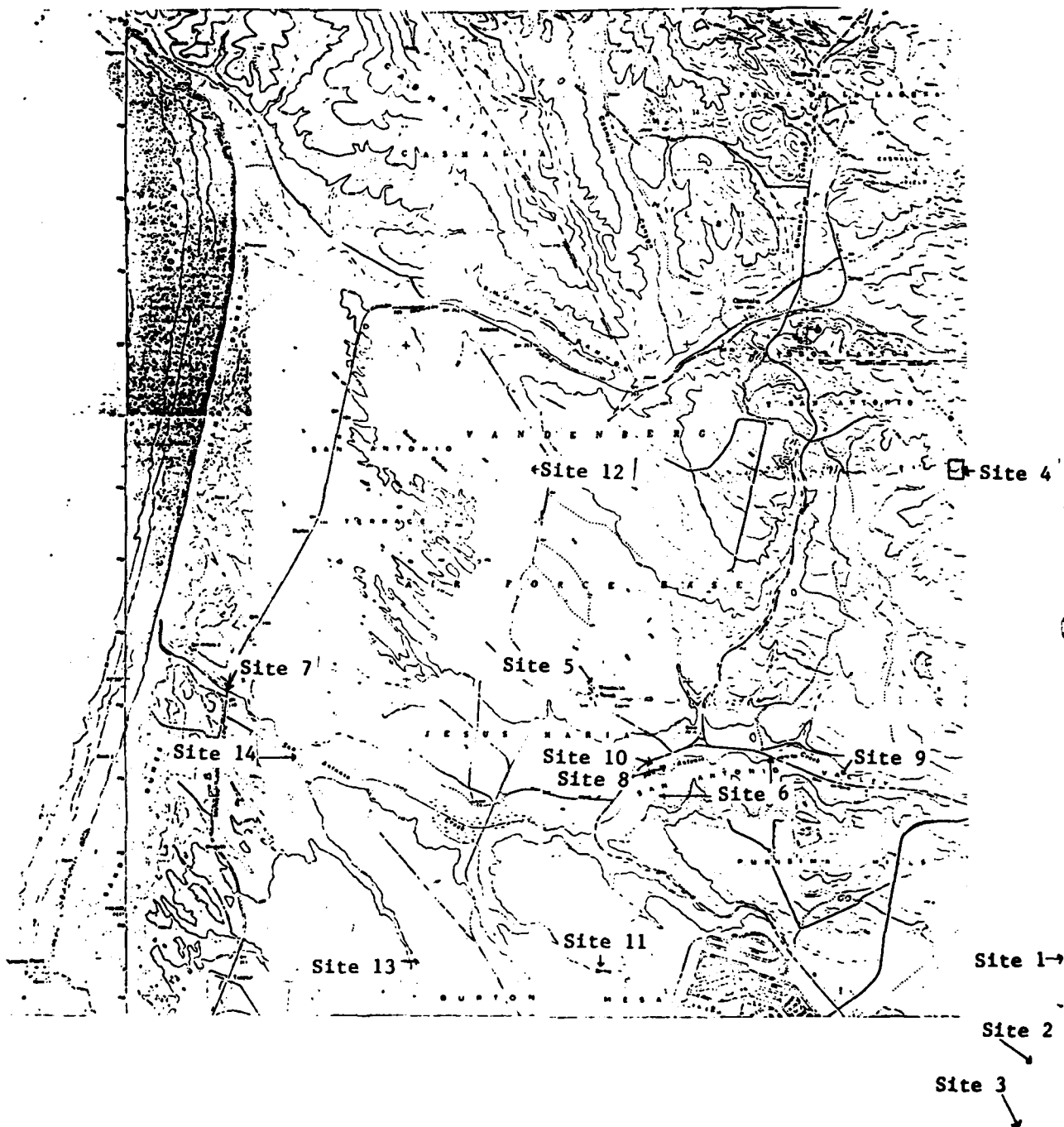
The historical research reported here was undertaken in support of archaeological research undertaken relative to construction of the MX Missile test facility on Vandenberg Air Force Base, Santa Barbara County, California. The resulting historical overview provides information important to the understanding of the archaeology of the study area, especially with regard to historic land use that may have affected archaeological sites, the nature of the natural environment in the early historic period, and the identification of the significance of post-aboriginal archaeological sites. Furthermore, the overview provides a variety of information important to the development of a cultural resources management plan for northern Vandenberg Air Force Base.

The focus of this study is a portion of northern Vandenberg Air Force Base known as San Antonio Terrace (see Map 1). This landform is situated south of the Shuman Canyon drainage and north of San Antonio Creek, alternately called Los Alamos Creek. It is bounded on the west by the Pacific Ocean and on the east by an unnamed drainage located about two kilometers east of the easternmost point of the Lompoc-Casmalia Road. In order to offer historical breadth to the research, the study zone was extended to nearby regions. The history of the whole of the Jesús María Rancho is at the heart of the work, but there is also some mention of adjacent Mexican land grants and of local and state history.

THE SPANISH PERIOD

Exploration

White Europeans, as far as we know, first entered the study zone during the summer of 1769 led by the Spanish Captain Gaspar de Portolá. It had been more than two centuries since Spain had reviewed the reports of Juan Rodríguez Cabrillo's discovery of Alta California and a century and two thirds since Sebastián Vizcaíno had presented the Viceroy of New Spain with his glowing reports of Monterey Bay. The 18th century events that generated enough momentum for Spain to actually occupy Alta California stemmed from the European based Seven Years War (1756-1763), when France was driven out of North America. At its conclusion, England, France, and Spain all reevaluated their new world possessions, and Spain, like England, set about strengthening her empire. When news reached Viceroy Croix in Mexico City in 1768 that there were Russian advances along the northwest coast of America, Croix recommended a voyage of reconnaissance. José de Galvez, a royal visitador, or inspector, with powers rivaling those of the Viceroy, was also in New Spain. He had been sent out by King Charles III,



Map 1. SAN ANTONIO TERRACE
(Numbers indicate historic sites referred to in text.)

and in 1768 was at work on a plan to pacify New Spain's troublesome northwestern frontier. Galvez seized upon the Croix recommendation and carried it a long step further: Spain would occupy Alta California and in particular the coastal area at Monterey Bay.

Falling back upon Spain's well-tried method for expansion, soldier and priest blazed the trail northward from San Blas in 1769. Fray Junípero Serra, as head of the missionaries, remained in San Diego after their arrival there on the first of July. But Captain Portolá, leading an expedition of 64 soldiers and Indian auxiliaries, and followed by a 110-mule pack train, set out on July 14 for the real goal, Monterey Bay. Since it was necessary to explore the land one day for the march of the next day, Sergeant Ortega and several scouts constituted a vanguard. Fray Juan Crespi wrote the official diary for the expedition. He often mentioned his companion Fray Gomez, especially in conjunction with the selection of place names. Making 2 to 4 leagues (5 to 10 miles)* a day, the party marched along the California coast that summer. North of Point Conception it passed Jalama Creek, and it reported upon an Indian village (ranchería) at La Espada, a place now incorporated in south Vandenberg Air Force Base on the former Sudden Estate. On July 28 they encountered another ranchería of only 70 souls. Here the soldiers found a supply of flint for their muskets and for that reason named the place Pedernales. Maps show it as Point Pedernales or, on today's maps, as Honda. The following day, August 29th, Portolá's party took to the northeast and could see a small bay lying ahead. As they entered the mouth of the bay they passed "with difficulty great sand dunes." Since it was afternoon and they had walked three hours, Portolá gave the command to stop, but there was little water for man or beast. For this reason the soldiers named the place La Cañada Seca, while Fray Crespi named it Santa Rosalia. This was probably in the vicinity of Bear Creek south of Surf. On August 30th, again heading to the northeast and walking along sandy beaches, they reached the mouth of the Santa Ynez River. Near the ocean Fr. Crespi judged the stream to be more than 100 varas wide. At the beach a large sand dune served the party as a bridge across the deep stream. They crossed and traveled into a very large open glen. The scouts who investigated inland reported back that "there was good land and trees and that above, the river was formed by two branches. It was so deep that the water came up to their breastplates. Water to irrigate the good lands was

*Terms of measurement used in this overview:

<u>Kilometer:</u>	.62 miles. 2 k = 1.2 miles
<u>League:</u>	2.60 miles (as per Barns, Naylor, and Polzer 1981)
<u>Chain:</u>	66 feet
<u>Vara:</u>	33 inches or 0.9166 yards
<u>Fanega:</u>	about one hundredweight of a bushel

plentiful." Although the Spanish sighted no Indian villages that day, many of the local people visited them and urged them to come to their rancherías. Portolá declined and instead made them presents of glass beads which pleased them. The Indians also urged Fr. Crespi's companion, Fr. Gomez, to stay. He too declined but promised to stay with them on the return trip. Fr. Crespi wrote that the river was the largest they had come across and named it the San Bernardo; Fr. Gomez named it the Santa Rosa. They were, Fr. Crespi calculated, at latitude $34^{\circ} 55'N$; however, $34^{\circ} 55'N$ is about where we find Point Sal. On Thursday, July 31, the expedition entered and camped in the study zone. Fray Juan Crespi wrote:

In the early morning we set out from this river (Santa Ynez), taking to the right the road north, following the shell strewn sand dunes that in a short time we left behind, and we walked through flat land and spread out hills, and after three hours of walking during which we went two and a half leagues, we arrived at a stopping place, that is a large pond of sweet water eighty varas wide, with many stands of tule at its rim, willows, and other trees. We stopped not very far from the water, where there had been a rancharia that without doubt had been temporary, as we did not see a single house. The local people entertained us with dances and this was the first stop in which the Indians had shown us their dances. For this reason this pool is known by the name of "Dance of the Indians" although others called in "La Graciosa" because of one of the soldiers who incidentally happened to say this when he saw the beautiful lake. It is in a low place surrounded by low hills. The waters come from a spring, and at its origin is good tender delicious water cress. We named this stop San Roman Nonato. It was that Saint Day.

Mission Historian Whitehead refers to this spot as Graciosa Vieja since a stage coach relay near present-day Orcutt was also called La Graciosa. The Crespi diary translator, Alan Brown, suggests that Graciosa Vieja was located just north of San Antonio Creek at Bass (MOD) Lake, which can be seen on the 1879 map. Given the walking time of 3 hours over 2-1/2 leagues of unknown trail, this could be entirely possible. Ethnographers today identify this stop with the Saxpil rancharia. Friday, September 1, the expedition set out again, traveling from La Graciosa to Guadalupe Lake. Crespi wrote in his diary:

At six in the morning we set out from our stopping place taking for our route the course to the north in order to avoid the sand dunes that were toward the beach, and although we penetrated into the interior of the country, we were not free of all of the dunes, but those we came upon were very high even though a great distance from the beach. After walking a half a league we came upon a lake

or pond of sweet water, with an abundance of pasture grass that grew among the tules that surrounded the pond. The sandy dunes persisted for about three-quarters of a league, and after this there was hard earth covered with rosemary leaved sun roses and shrubs not known to us. A league and a half further on we came down into a beautiful valley three leagues wide and more than seven leagues long, and in the middle of it was a very large lake more than fifty varas wide and of an unknown length because we could not see the end, and it ran on toward the sea. At its edge were many tules, many poplars and innumerable grasses. We made camp near the water. There were two rancherias, one small and the other large.

The "pond of sweet water" could have been Turtle Pond. However, since the sand dunes shift the ponds could be in different places at the present time. The Indians there visited the Spanish, bringing them a drink and the seeds from which it was made. Portola's party found the lake was supplied by a spring and named it La Laguna Grande de San Daniel. Fr. Crespi recorded that they were at latitude $34^{\circ} 13' N$.

On January 1, 1770, as the expedition passed through the study zone on its return trip to San Diego, they stopped at Guadalupe Lake on New Year's Eve. It had been just 4 months since they had camped there before. Setting out on January 1, they again camped at the little lake they had named San Ramon Nonato (La Graciosa). Fr. Crespi wrote:

We set out in the morning on the road we knew and after walking three leagues we arrived at San Ramon Lake (alias La Graciosa) where the Indians had danced on August 31. Yet, today the rancheria was not to be found. But God did not fail to provide for us as he placed before us on the road for us to see a female bear with three cubs following her. Shortly, some mounted soldiers tutored by experience with the ferocity of these animals succeeded in killing the mother and one cub. Provided thusly we had a grand party. The meat of the bear is not bad tasting, but today it seemed to us better than if it had been delicious veal. For this succour we gave thanks to God who had given to us a good beginning to the year.

The following day, Tuesday, January 2, the party left early for the south, and knowing that the Cañada Seca (Bear Creek) lay ahead, it took on a good provision of water at Santa Ynez River. Fr. Crespi recorded that the weather was more like spring than winter, with cold only at night.

Alan Brown's translation of the original Crespi journal for the second expedition tells us that the party left Pedernales Village going north on May 7, 1770, came to the Santa Ynez River, and camped near the shore. Fr. Crespi wrote of the fields covered with flowers: yellow violets, larkspur,

flowering poppies and sage. He records that the flowers persisted throughout the area except on the sand dunes. There were many bears, and their tracks could be seen through the dunes. Three hours after setting out on May 8th they arrived at the "San Raymundo Nonnato pool" (San Ramon Lake) and possibly today's MOD Lake where they made camp, but they did not find the village of Indian people there who had danced for them on the first trip. On the 9th they took a northerly course through "large high sand dunes that persisted for three quarters of a league."

Captain Juan Bautista de Anza led a group of colonists to California in 1775-1776. This is known as his second expedition, and Fray Pedro Font was the memorable diarist of the colonists. The purpose of the trip was to explore, to conduct families of soldiers to the port of Monterey, and to settle and hold the port of San Francisco. The party of some 177 people followed close upon Portolá's trail through the study zone, camping at both the mouth of the Santa Ynez River and at the San Antonio Creek. Excerpts from the Font diary translated by Herbert Bolton (1930) follow, commencing with the march north from Cojo Bay, which lies just east of Point Conception.

Wednesday, February 28. Camp 79. Set out from El Coxo [Cojo Bay] and at 4 pm arrived at Santa Rosa River (Santa Inez) having traveled 12 leagues....All the way the road runs on the top of the hills, for it is not possible to travel on the beach because of the reefs. But the road is in sight of the sea and not far from it until one gets very near the river. When one goes right down to the beach before reaching the river one travels for a good stretch through sand dunes and sandy hills [after leaving camp, near Surf, they passed flowers, good pasturage, and golden Saphire, Crithmum maritimum]...

Thursday, February 29. Camp 80. (This day they set out at noon when there was low tide so they could cross the river and at 3:15 pm they arrived at Laguna Graciosa.) It is in pools almost between sand dunes and near the sea. Before reaching the river the road runs along the beach, but afterwards it recedes a little from the coast, which is full of rocks and reefs. Some sand dunes or sandy hills are passed and likewise a fairly wide flat between two hills and half closed in by a pool of water which is there, having no exit toward the sea, but not very miry. In this flat we saw a band of 6 bears, of which many large ones are found in those lands.

The translator, H.E. Bolton, explained in 1930 that the Laguna Graciosa (Bass Lake), where they camped, was at San Antonio Creek and hemmed in by the littoral and sand dunes. On Friday, March 1, 1776, the party set out from the Laguna Graciosa to spend what Font described as a very unpleasant day. He wrote,

The road runs somewhat away from the sea, and for about three leagues through sandy hills or sand dunes with ups and downs. Afterwards it descends a long slope to the Laguna Grande, which to me looked like some estuary, and near it there is a village [Bolton 1930:265].

The Laguna Grande or Larga was Guadalupe Lake south and east of Guadalupe. The Spanish called the Santa Maria Valley drainage up to the San Luis Obispo hills--a wide and flat area--La Larga.

THE MISSION PERIOD

The ranching potential of the study zone was neglected for close to 20 years after Portola's expedition passed through it. In 1777 Father Serra recommended establishing three missions on the Santa Barbara Channel as links of communication between the missions already built in the north and south. Mission La Purísima Concepcion was founded as one of them in 1788, and 10 years later it was not only self-supporting but had a surplus of goods with which it was supplying the presidio of Santa Barbara and other missions. Mission historians have learned much of what we know of the ranching and cultivation practices from the mission records and from the reports sent to the superiors in Mexico City, especially those of Fr. Mariano Payeras, who arrived at La Purísima in 1803.

The land used by the missions in civilizing the Indians was exploited under usufruct right only, which meant that no grant or patent was issued, only the right to use. During the Spanish period the missions were by far the greatest users of land in provincial California. Theoretically the missions could use all of the land that lay between them. In practice the dividing line was fairly close to the middle point between missions, but terrain established limitations to the area used as well. The mission reports do not indicate the boundaries between mission lands. Since the grazing land was not fenced, the herds were not confined to any particular valley and wandered into areas belonging to other missions and even onto the lands of private grantees. California historian John Caughey (1970:89) estimates that there were only some 30 land grants made in California to private individuals during the Spanish period; historian R.G. Cleland (1975:19) wrote that there were fewer than twenty. Most of these were in the vicinity of Los Angeles; however, according to H.H. Bancroft, a rancho near La Purísima was granted to Francisco Reyes. Reyes had arrived in California in 1786 and enjoyed a grant of land on the Encino Rancho until he had a quarrel with the fathers at the San Fernando mission and left that area. The location of his grant near La Purísima is not clear (Bowman n.d.; Bancroft 1888:466, 561, 612). Yet, as will be seen below, mention of Reyes and his place lead us to believe that his grant was near or in the study zone.

The area under the influence of the Mission de Purísima covered the territory from just west of present-day Gaviota and Point Conception at the

south to old Rancho Guadalupe in the north. This involved approximately 300,000 acres (see Map 2). Recipients of the later Mexican land grants in the area claimed that at least part of the following Mexican ranches had earlier been La Purísima Mission ranch or grazing land: Punta de la Laguna, Todos Santos y San Antonio, Tequipie, Jesus Maria, Alamos, Santa Rita, and Lompoc. Within the mission spread was the old Rancho San Antonio. The original claimants to the Mexican Land grant, the Jesus Maria Rancho, described that land as a portion of the Mission's Rancho San Antonio. The 1810 Mission Report reveals that necessary buildings had been erected on the Rancho San Antonio:

There have been made on the Rancho San Antonio the out-buildings for farm hands which is indispensable to its existence and likewise a great granary adequate for the seeds this locality promises to yield [Payeras 1810].

The Rancho San Antonio buildings were probably on the later Mexican land grant Todos Santos y San Antonio. A building captioned "Rancho San Antonio" appears on the diseño or sketch map drawn for the Land Claims Court in the 1850s (Map 3). Mission historian Richard Whitehead has located the San Antonio headquarters halfway between the road to Casmalia and the road due south from Orcutt, east of the study zone (Map 1, Site 1). Only cactus and black greasy soil remain to indicate the site. A La Purísima baptismal entry refers to the Rancho de San Antonio as "alias Step." Step (Estep) was the ranchería close to present-day Los Alamos (Baptism 1083).

Mission reports stressed that a water shortage near the mission itself led to a constant search for better crop and grazing lands at a distance from the mission. Fr. Payeras wrote to his superiors about this water scarcity and the absolute necessity to sow fields outside the mission environs proper. In June 1809, Fr. Payeras was apparently desperate. Salsipuedes was dammed but had no water. Wheat in the adjacent fields had been sown. So he called a meeting of the old men and through them discovered that there was water at the home of a man named Reyes. Fr. Payeras wrote, "I flew there immediately and found...water could be made available from Zejas down" (Engelhardt 1932:25). Whitehead concludes, based on his research, that the reference to the Zejas meant that the water at Reyes ranch could be taken out in a natural way.

The La Purísima baptismal records indicate that the Francisco Reyes Ranch might have been near ranchería Saxpil which lay in the study zone. The records show that in 1805 a person was baptised at the Reyes Ranch who was "del Ranchería de Saxpil alias Graciosa Vieja." In 1806 a person from Naucu (Graciosa Nueva) was baptized on the Reyes Ranch. Further, "Joseph Maria Dominguez," a soldier at the Santa Barbara Presidio, baptized two children in 1803 in the same general area. One was from the ranchería saxpil (Graciosa Vieja) while the other was baptized at San Antonio alias Estep. Dominguez was described as a neighbor of the Rancho San Antonio in one

entry and as a neighbor of the Rancho Guadalupe in the other. Ethnohistorian Chester King, who has analyzed the baptismal records, speculates that Domínguez may have been a manager on the Reyes Ranch (Baptisms 2288, 2343, 1823, 1924). Once water was discovered on the Reyes place it became very important to the mission. Fr. Payeras took over the management, brought in fifty pickaxes and other tools (which must have meant that he brought in Indian workers as well), and he renovated the old building there roofing it with tile and whitewashing it (Whitehead 1980:254). The Reyes ranch could have been located in the eastern portion of the study zone.

Historian Engelhardt wrote of several other irrigated spots away from the mission. One of these was the Huerta Mateo (Map 1, Site 2) in Lompoc Canyon a few miles west of the mission. Fr. Payeras had also discovered a gully of water by the hills of La Larga and he wrote of its possible use if the mission had no nearer supply. This was 9 leagues from the mission on the "part of Thomas de la Larga." By 1817 the mission fathers had built a wooden "palizada" house there to accommodate the caretakers and transients. Seeking irrigated land in all directions, Fr. Payeras transplanted some Mission Indians as far south as La Espada to plant a vineyard.

The mission recorded production figures for Rancho Reyes, Rancho Salsipuedes, Rancho de la Larga and others. Wheat, corn, and beans were the principal crops. In addition smaller amounts of peas, lima beans, and garbanzas were harvested. Flax was introduced in 1804. The largest harvest ever recorded by the mission was 1799: 4,000 bushels of grain. Two thousand bushels was about average. The peak of the Indian neophyte population was in 1804, when they numbered 1,520. The neophyte worker population had dropped to less than half of that by the end of the Spanish period, and crop statistics followed along on the downward trend. In 1812, the year of the great earthquake, the mission fields produced 3,000 fanegas of wheat, 50 fanegas of corn, and 27 fanegas of beans (Engelhardt 1932:58-61 and 339). Already the worker population was exhibiting an appalling number of still-born infants, a phenomenon also common to the slave populations who were confined on the sugar plantations of the West Indies.

Mission La Purísima had bountiful grasslands upon which to graze its sheep and cattle. Whitehead judges that the mission herds would have avoided the sand dune areas of the study zone. The reports gave statistics for cattle, horses, sheep, goats, swine, oxen, and mules. The stock figures rose from 6,000 head in 1799 to a peak of over 22,000 in 1818. Fr. Payeras had purchased 2,000 head of cattle in 1809; they multiplied rapidly. Historian Bowman, who corrected the mission figures with figures given in the Land Claim Cases and with pioneer estimates, claimed that Mission Purísima's peak year for stock was 1821 when there were 23,546 head of stock grazing an estimated 42 leagues of land. He too commented that the stock had a very wide area over which to range. His observations strengthen the notion that the sand dune area was probably not disturbed between 1769 and 1821

(Bowman n.d.). Spanish occupancy of Alta California lasted only 52 years but left behind an impressive heritage of law and custom.

THE MEXICAN PERIOD

The long war for independence in New Spain, which dated back to the uprisings of insurgents in 1810, finally came to an end in 1821 following the success of the revolutionaries under Agustín Iturbide. However, the old order did not fall in the new country called Mexico until late November 1823, with Emperor Iturbide's abdication. His demise was followed by the ratification of the liberal Constitution of 1824 with its provisions for secularization of church privileges.

An important preliminary to secularization of the Church lands was the August 18, 1824, decree authorizing the government to proceed with the colonization of the territories of the republic. The general rules for colonization closed with the following words:

In those territories where there are missions, the lands occupied by them cannot be colonized at present, nor until it be determined whether they are to be considered as the property of the establishments of the neophytes, catechumens, and the Mexican colonists [Jones 1849 quoted in Stuart n.d.].

This decree and the arrival of the first Mexican governor, José M. Echeandia, awoke hope in the Californios that they would soon come into possession of land. Those already known to them--the mission ranchos, with portions of them already tilled and with proven grazing potential--had the greatest appeal.

The turmoil brought about in Mexico during the Hidalgo revolt of 1810 and final independence in 1821 was, of course, felt in Upper California. After 1810 the soldiers received no pay from Spanish Mexico and depended upon the nearest missions for maintenance for themselves and their families. The administrative confusion and interruption of sailing schedules cut off the mission La Purísima from its annual income from the Pius Fund and from its usual imports. In 1824 the neophytes at La Purísima staged a well-planned revolt, brought quickly to an end by Spanish arms, but at the close of that year the neophytes numbered only 662 and total agricultural products fell to 2,035 bushels, less than half the production for 1822 (Whitehead 1980:263). Livestock, agricultural production, and neophyte figures continued to dwindle. Between the rains of 1828 and 1830 the Purísima ranches suffered a 22 month drouth. Several large droves of mares were driven over the cliffs into the sea in order to save pasture for the cattle and sheep. These were the years of the hide and tallow trade which had commenced at about 1810 and continued throughout the short Mexican period. Travelers reported upon the province-wide practice adhered to at the Mission La Purísima ranches: to

slaughter animals for their hides and tallow while leaving the carcasses to rot (Bancroft 1888:199, 204).

The government in Mexico changed hands several times in the decade following 1824, and the succeeding governments displayed varied evidence of anticlericalism. The liberals who came back into office in 1833 took note of the rather desultory reaction of the Church toward the secularization decrees promulgated by their predecessor government. Catching the Church off guard in August 1833, they quickly cut away at its power. An August 17th law secularized the missions of Upper and Lower California thus turning over all of the mission's usufruct lands to local secular authorities. Consequently, on August 9, 1834, Governor José Figueroa issued provisional regulations for the secularization of the lands of all of the missions of Upper California. Two years later Mexican citizens named Olivera claimed that they already had houses built on a portion of the Mission's land. The mission historian Engelhardt wrote that such Californios were scheming not only to secure possession of the mission lands, but also the livestock and even the Indians who should continue to work for them (Engelhardt 1932:56).

Historian Engelhardt offers two interesting sets of livestock statistics for 1834. In one the total livestock in December 1834 had fallen to about 14,000. In the other, "Statistics of 1834," the total was 31,000 (Engelhardt 1932:58, 339). Four months after the final laws were published for confiscation of the missions and on February 18, 1835 La Purísima's property was turned over to a lay commissioner, Domingo Carrillo, and appraised by two appointed laymen.

While the mission buildings and their goods do not concern us here, the dollar value assigned to the mission ranchos may be useful:

Rancho Los Alamos	\$1,185.00
Rancho San Antonio	\$1,418.00
Rancho Santa Lucia	\$1,080.00
Rancho San Pablo	\$1,060.00
Rancho Todos Santos	\$7,176.00
Rancho Guadalupe	\$4,065.00
Rancho La Mission	\$1,952.00 (Engelhardt 1932:57)

In assessing the impact of range cattle, note that Rancho San Antonio places fourth in land value, far behind the two largest ranches.

Commissioner Carrillo turned the mission commissionership over to his brother Joaquin in August 1835, and in 1838 Joaquin transferred it to José María Valenzuela. The latter may be noted as the first name to appear as grantor on the title entries for the Jesús María Rancho in the Santa Barbara County records. By 1841 the mission livestock was completely gone (Whitehead 1980:265).

Mexican Land Grants

Vandenberg Air Force Base at large is comprised of the Jesús María Rancho in its entirety and parts of six other Mexican land grants: Rancho Lompoc, Rancho Punta de la Concepción, Rancho Todos Santos y San Antonio, Rancho Casmalia, Rancho Guadalupe, and Rancho Mision de la Purísima (Appendix 2). The archaeological survey for which this historical study has been prepared focuses upon the northern part of Vandenberg Air Force Base at San Antonio Terrace, an area well within the bounds of the old Jesús María Rancho. Basic data upon the other six ranchos is included in the appendix and some history of the Ranchos Casmalia and Todos Santos appears in this text. However, the Jesús María Rancho warranted intensive research, and it is the focus of the study below.

Our best documentation for the years 1836 to 1854 for the Jesús María Rancho is found in the records of proceedings, testimony, and maps surrounding the land claims case argued to secure its patent from the United States. According to the Treaty of Guadalupe Hidalgo signed by the U.S. and Mexico in 1848 and which brought the Mexican War to an end, the United States was obligated to confirm titles to all lands legally held by Mexican citizens. The United States government set up a Board of Commissioners in January, 1852 to settle the private land claims, and the land holders were required to submit maps and testimony dating back to the year of occupancy. On May 27, 1853, Luis T. Burton and José Carrillo, who on that date held joint title to the Jesús María Rancho, filed their claim with the California Lands Claim Commission. Burton and Carrillo were not the original claimants who had been granted the land by the Mexican government in 1837, but they set out to prove that they were the legal owners in 1853. It was necessary for them to verify the original Mexican grant to prove chain of title to 1853, and to continue to document chain of title until the case was finally settled. The papers for the case were on Docket No. 268 and recorded as Transcript No. 528. It was entitled "Lewis to Burton et al, Claimants vs the United States, Defendants for the place named Jesús María.

Bancroft Library holds the original documents which follow the case through 1857. Those documents follow through the appeals to 1878, the year patent was recorded on county records, are not available. Santa Barbara County records fill in this gap somewhat. Many U.S. government records of this nature were destroyed when the San Francisco Federal Building burned in the great earthquake and fire of 1906. The history below of the Jesus Maria under Mexican rule is taken from the Bancroft documents unless otherwise noted.

Antonio Olivera, father, his son José Antonio Olivera, and Lucas Olivera, cousin of José, petitioned for the Jesús María. All three claimed that they had occupied a portion of the old Mission Rancho San Antonio less than two years after Governor José Figueroa in 1834 lay down the provisions for secularizing mission lands. José Antonio Olivera, the son, was identified by one witness as an Ensign of the Militia. The father and the cousin made no claim to military duty, a point neither would have overlooked had they

served, since reward for military duty was the traditional reason for receiving land in the Spanish empire and its successor states.

A witness, Fernando Tico, when asked in 1854 to state all he knew in relation to the ranch's occupation, cultivation, and improvement, had specific information to give. The Oliveras had two houses. The father and son lived in one and Antonio's cousin, Lucas, lived in the other. The first houses were built of wood, but they were afterwards built of adobe. The ranch had stocks of cattle and horses and there were corrals. The Oliveras cultivated a small portion of the land. As for its location and boundaries, it was in the County of Santa Barbara [at the time the testimony was given] and lay between the Ranch of Don Guillermo Hartnell (called Todos Santos), that of Antonio Olivera (called Rancho Casmalia), and that of Joaquin Carrillo (called Rancho Lompoc). Whether the Antonio Olivera of Casmalia was related to the claimant to the Jesús María is not known. What is known is that on the Rancho Casmalia deed records, the grantee's name appears as Antonio María Olivera.

In 1837 there had been no survey, and common to all of the Latin American land records, naming ranchos of the neighbors was all that was deemed necessary in property records to properly locate one's own. (In Latin American countries this can still be an acceptable description for rural property.) In their petition filed in Santa Barbara on March 17, 1837, the three Olivera petitioners stated that they were residents of the town of Santa Barbara, but

...needing land in which to be able to dedicate themselves to the interesting branch of agriculture in order to seek by this means a subsistence for their large families they apply for aid from the Laws of Colonization petitioning for the place called Jesús María.

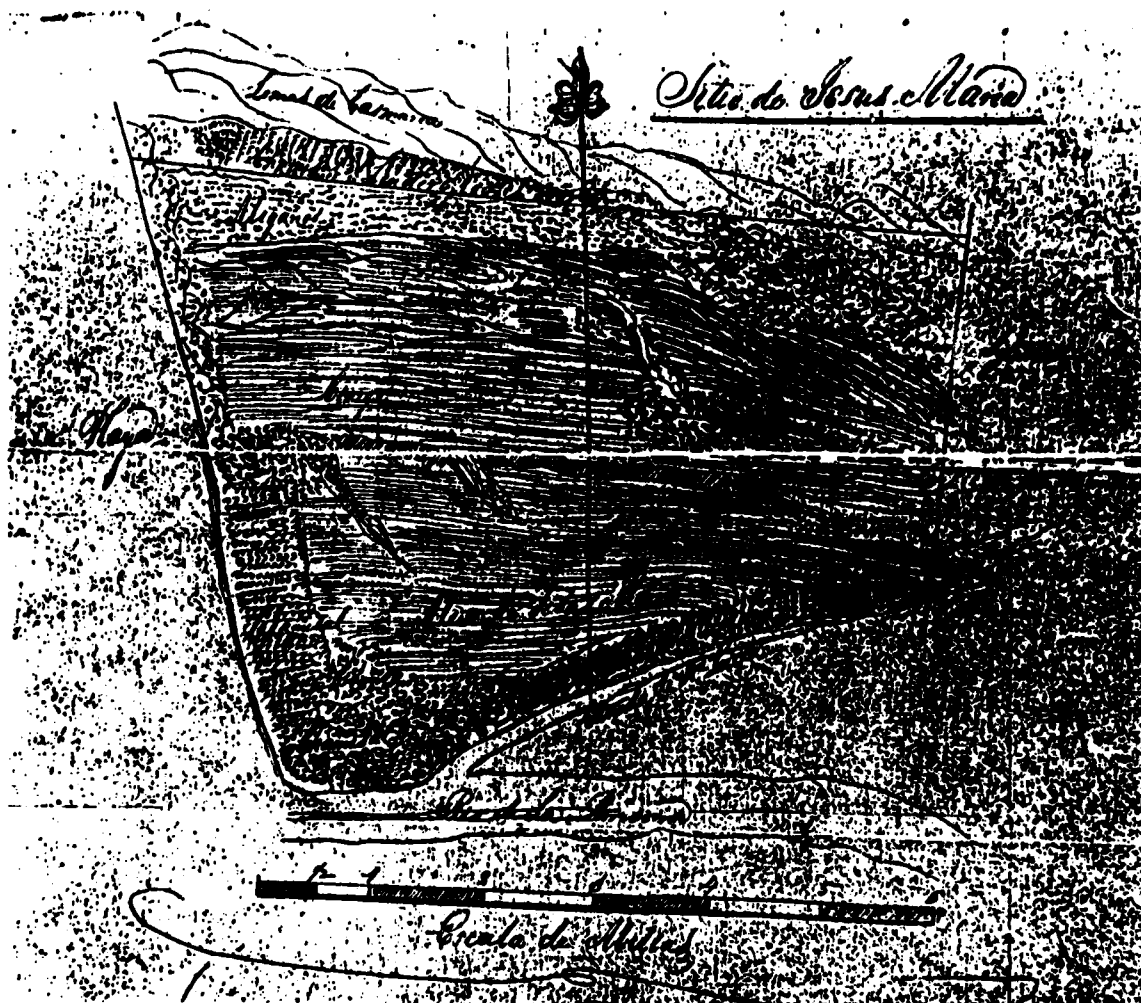
The land, they argued, had pertained to the ex-Mission La Purísima, but was then vacant and in a state to be granted in colonization under the 1826 law. The illustrious Ayuntamiento of the Municipality (Santa Barbara) granted the petition to these "deserving Mexican Citizens, of good character [who] have property with which to stock it" on March 20, 1837.

The two hand-drawn maps or *diseños* submitted by the Oliveras for their claim tell us many things, yet neither indicate house locations, a feature so often included on those early drawings. Spanish and Mexican law required improvements such as structures just as United States homestead laws did. The *diseños* are included as Maps 4 and 5. Map 4 is provided with a scale in miles, but it is obviously not accurate.

Commencing at the northwest corner of Map 4 where the rancho adjoins the Hills of Casmalia we note sand dunes, Méganos [i.e., *médanos*] extending from the ocean over four and a half miles across the northern portion of the ranch to the east. The dunes stretch along the beach southward 2-1/2 miles or to where the San Antonio Creek meets the sea. Twentieth century maps show the San Antonio Creek at about 3.40 miles from the northwest corner of



Map 4. DISEÑO OF RANCHO JESÚS MARÍA
 (Reduced from a copy provided by the Bancroft Library.)



Map 5. DISEÑO OF RANCHO JESÚS MARÍA
(Reduced from a copy provided by the Bancroft Library.)

the ranch. The difference is probably due to the informality of the *diseños* in general, as is evident upon the first glance, and the prevailing acceptance of informality by the Latin American officials.

The land in the northwest quadrant south and east of the dunes is labeled ciénega, a marshy moor or swampy place. Map 4 shows a corral. On Map 5 we see a laguna which could mean either a small lake, a pond, or an exceptionally marshy place. In the northeast quadrant an unnamed low place runs northwest from the valley of San Antonio Creek. This could be where we now find the Lompoc-Casmalia Road. Two cultivated areas lie west of this: La Huerta to the north and a Mesa Huerta (tableland garden) south of it. These mesa gardens coincide with the area the twentieth century Marshall Ranch called the Walker Mesa. San Antonio Creek is simply called an arroyo, a water course or rivulet, while the Santa Ynez River is called the River of Purísima. The southwest quadrant shows two finger-like projections which are probably dales between low lying hills. The most western dale was latter called Canon Juan Pedro (Map 1, Site 13). Mesa Jesús María is the latter day Burton Mesa. To its south and toward the ocean is the chamisal, wild cane or reeds. In the southeast quadrant are trees, the chamisal, and two lagunas. The Canada de Santa Lucía appears on both maps although it is positioned differently.

Juan B. Alvarado, who led a local revolution to become Governor in 1836, conveyed the land to the three Oliveras on April 8, 1837. The conveyance was confirmed April 19, 1837, and the Oliveras were granted judicial possession May 30, 1840 (Appendix 1). By this time, José Antonio and Antonio Olivera had already conveyed their two-thirds interest in the land to José María Valenzuela on August 16, 1839. Valenzuela was manager of temporalities at the Mission La Purísima and had been for over a year. He was thus in a position that could have made him a comparatively rich man. The brothers Domingo and Joaquín Carrillo had consecutively managed the mission "inventory" before him (Engelhardt 1932:57-59). Domingo and Joaquin subsequently acquired the huge Rancho Lompoc to the south of the Jesús María Rancho.

The documents on title exchange for this early period do not delineate the location of the land transferred since the rancho was still undivided. Nor, as a rule, do they divulge the purchase price. The rancho was not divided by survey until after 1880. Portions conveyed were simply described as thirds of the whole. The purchase price was entered solely to satisfy a formal legal requirement. It could read a small dollar amount, a figure without any relationship to the actual sales price. On the other hand, various of the documents spell out an exchange of real goods and even argue for fairness on that day's market. Under Mexican rule the deeds of conveyance were duly registered in Monterey where the Seal of the Maritime Custom House was attached.

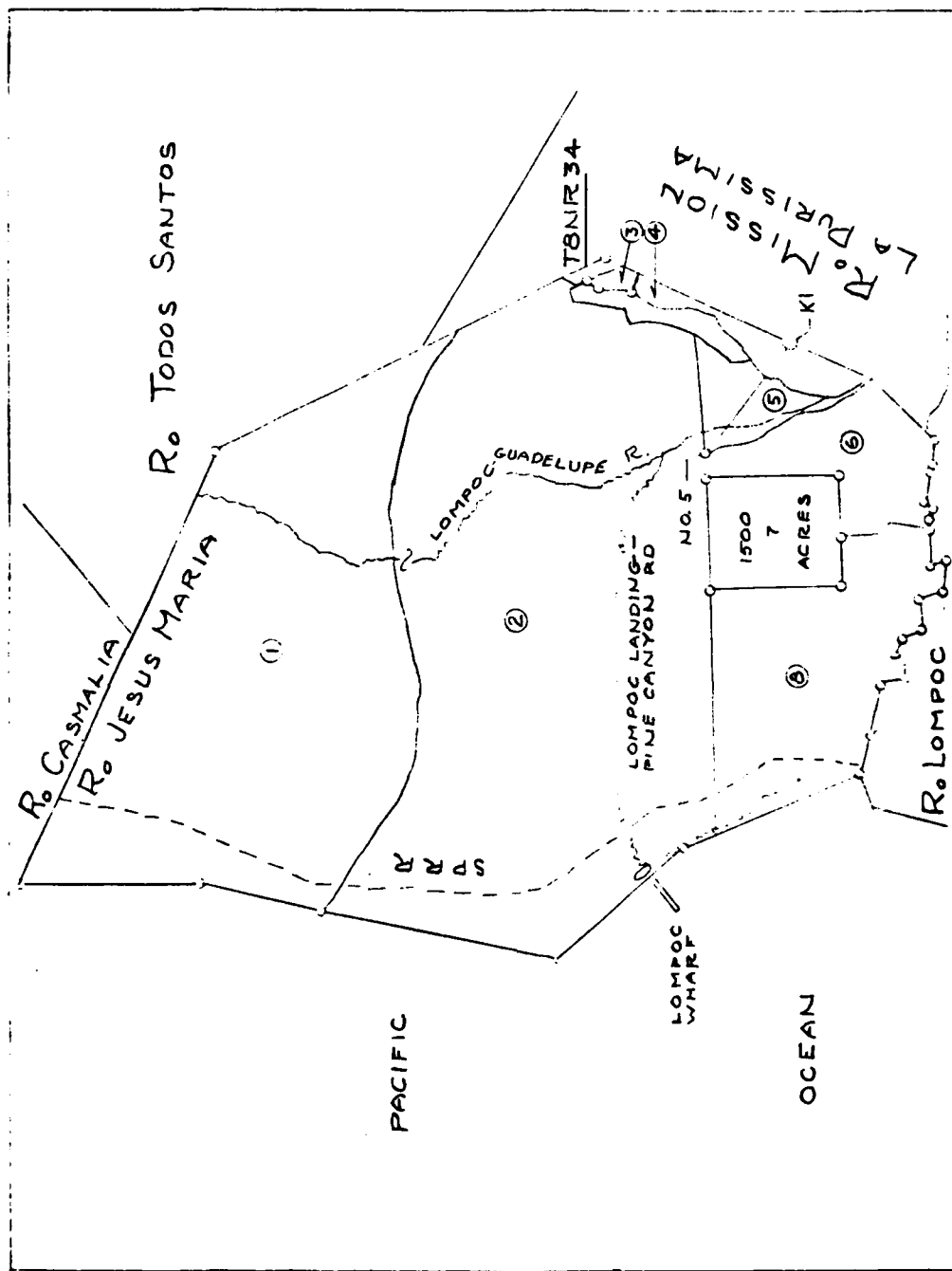
Antonio Olivera testified that he "received the sum of \$80 from citizen José María Valenzuela, \$39 in silver, and \$45 in the produce of the country." When this was delivered and the deed was transferred in October of 1841, the

purchase price was nonetheless entered as \$20. Six years later Valenzuela sold his two-thirds in two separate transactions: one-third to Don Pedro C. Carrillo in 1847 and the other one-third to Luis T. Burton in 1851. Valenzuela claimed in 1847 that he was selling "one of the parts which he has in the place of Jesús María," a property to which he had acquired the title of ownership, as given by the Departmental Government, free of all alienation or religious tax pledges or any other incumbrances. The sale was consummated for \$200 in "current money" (i.e., in silver) and five barrels of aguardiente, "which barrels will be delivered to him in the month of December of this year, he receiving them at forty dollars per barrel." The conveyance continued:

...and moreover that the just price and true value of the part which he has sold of "Jesus Maria" are the two hundred dollars in silver and the five barrels of aguardiente, that it is not worth more nor did he find any person who would give more for it, and if it is or can be worth more, of the excess be it a larger or small sum, he makes in favour of the purchaser his heirs and successors free gift and donation.

With the 1847 transaction the undivided Jesús María Rancho had three owners: Pedro C. Carrillo (with his wife Josefa Bandini de Carrillo), José María Valenzuela, and Lucas Olivera. We have reason to believe that Pedro C. Carrillo lived in the Santa Lucia Canyon (Map 1, Site 3) and that this had been the home of Antonio (father) and son Jose Olivera, the original grantees. As to where Lucas built his adobe we do not know.

William E.P. Hartnell, a naturalized Mexican citizen, petitioned for 5 square leagues of ex-mission land east and northeast of the Jesús María Rancho under the name of the Rancho Todos Santos y San Antonio. The eastern portion of that ranch lay within the study zone, and chain of title data for Lots 4 and 5 are of interest to this research. As in tracing the history of the Jesús María Rancho, the best source of documentation for the Todos Santos in the Mexican period is the transcript of proceedings related to land claims under United States law available at Bancroft Library. Hartnell was the first foreigner to become a permanent resident of California. He married Teresa de la Guerra, daughter of the largest landholder in Mexican California, succeeded as a merchant, and in 1839 Governor Alvarado appointed him Inspector General of the Missions. Case 228, California Land Claims, put forth Hartnell's claim for two pieces of land: the 5 square league Todos Santos y San Antonio which became his in 1841 and the Cosumnes Ranch, an 11 square league tract in the foothills of the Sierra Nevadas north of Sacramento granted him in 1844 by Governor Micheltorena. With the well-known land claims attorneys, Halleck, Peachy and Billings, representing him, Hartnell succeeded in proving right to title to both ranches in spite of the limit of 11 square leagues customarily granted by Mexico to a single individual. Cosumnes, Hartnell explained, was purely a matter of land



Map 6. RANCHO JESÚS MARÍA LOTS
 (Reduced from a tracing by W.E. Roberts of map held by
 Santa Barbara Title Insurance and Trust Company.)

speculation, and since he could get it for the asking plus a sum of \$8 for making out the papers, he had done that. He had never been there himself, nor would he permit any of his family to go there.

The Todos Santos y San Antonio Ranch was another matter. According to the Case 228 papers, Hartnell had argued that the Patrocino Ranch where his large family (a wife and 11 children) lived was not producing enough to maintain them. Continual robberies over a long period of time had made cattle breeding unprofitable. Hartnell petitioned in June 1841 that the Purísima Mission was not using the Todos Santos land for agriculture and that only one or two droves of breeding mares grazed there. The mission administrator at Santa Ynez confirmed Hartnell's statement. Hartnell then had second thoughts, and he wrote to the governor, "the said place alone is very insignificant but by the help of the abandoned Rancho of San Antonio which is situated in its vicinity, it would form a place of some consideration." Thus, in his amended petition Hartnell asked that the place known as Todos Santos be united to that of San Antonio. This was approved, and the grant was made on August 28, 1841. Hartnell entered the land to pull up grass, scatter hands full of earth, and perform other ceremonies of true ownership. Fernando Tico, a judge, oversaw measurement of the land on October 4, 1841. Land owners of the adjoining properties were present, as was the custom, to witness and to sign for the way in which the boundaries were marked. José Antonio de la Guerra came as agent for the mission which lay to the south. The Rancho Jesús María was represented by Francisco Olivera, who came as agent for his father Lucas Olivera, and by José Valenzuela. One Antonio Olivera also acted as witness. This was the name of the grantee of the Rancho Casmalia. To comply with Mexican laws of colonization, Hartnell built a wooden house and corrals, fenced in cultivated areas, and kept up to 2,000 head of cattle and about 300 head of horses on the ranch. One of Hartnell's sons lived continuously on the ranch during the pastoral Mexican era with his family and with overseers and horsemen belonging to the rancho. Mexican rule came to an end in 1848 after 27 years of sovereignty.

THE AMERICANIZATION OF JESÚS MARÍA RANCHO

Lewis T. Burton Establishes Ownership on the Jesús María

The California Bear Flag Revolt in 1846 and the War with Mexico culminated in the annexation of California by the United States through the Treaty of Guadalupe Hidalgo in February 1848. Neither these political events or the gold rush of 1849-1850 did much to affect ranching activities at Jesús María. The Americans created Santa Barbara County in 1850 and organized it into three townships with the study zone lying in the northernmost, Township Three. The first entry in county deed records for the Jesús María was made in 1851 when Lewis T. Burton bought Valenzuela's remaining one-third for an undisclosed sum.³ On April 30, 1852 Burton loaned José Carrillo and his wife Catarina Ortega de Carrillo \$4,000, taking back a mortgage on the Carrillo one-third of the ranch; the Carrillos agreed to release all rights together

with all the "buildings and improvements." Whatever the Carrillo "inhouse" arrangement might have been, the records then show that Pedro Carrillo and his wife Josefa Bandini de Carrillo deeded their "one undivided third" of the ranch to Lewis T. Burton for "one dollar" four months later (August 26, 1852). (By this time Burton had married into the Carrillo family.) The deed noted structures on a part called Santa Lucía (Map 1, Site 3; Map 7)(Deeds A-48). The documents refer to it as a rancho or farm thus suggesting it was worked in both ways. The deed was duly registered in the County Records Office at Santa Barbara, along with the deed to the previous third Burton had purchased from Valenzuela (Deeds B-20; Mortgages A-29; Deeds A-48).

Lucas Olivera appears to have worked on or at least owned his third of the ranch for 15 years or so after the original grant was confirmed in 1840. He conveyed the deed for his undeveloped one-third to one Juan Carrillo (alternately spelled Camarello) on January 27, 1853. Experts "chosen by consent of both parties" set the sale price at "one hundred dollars in current silver money [and] one hundred dollars in goods, twenty cows and twenty heifers." On the same day, the deed was again transferred to José Carrillo and again for a price spelled out in real goods:

...fifty barren cows of two years and upwards, one hundred steers of the same age, and five horses in good condition, which cattle the seller agrees to receive next year of the cattle owned by Don Jose de la Guerra and [grazing] in the Rancho of San Julian after the latter gentleman has set apart from said cattle three hundred head for a matanza, and he will receive the horses in the possession of the purchaser, to which he also consents.

All were acknowledged as received and the new owner declared he was satisfied on the date of deed transfer. The local magistrate certified the agreement (Case 528). José Carrillo, who appears on the County records as a single man and thus apparently distinct from the José married to Catarina, conveyed his third to Lewis T. Burton May 4, 1853. This made Burton owner of the entire ranch (Deeds A-115). Burton had not made any direct purchases from any of the Oliveras.

Although the Treaty of Guadalupe Hildago obligated the United States to confirm titles to land held in 1848, title policy placed the burden of proof upon the grant holders or, as in the case of Jesús María, on those who had since obtained the land from the original grant holders. In January 1852, a board of three land claims commissioners was installed in San Francisco, and every claimant in the state had to appear before it within 2 years, present proof of title, and petition for a patent by the United States government to the land. In January 1853, Burton was collecting the necessary documentation for his case. He filed in January 1854 under the heading "Luis T. Burton et al., vs the United States." To establish the boundaries of the claim, Burton had an official surveyor and rope bearers accompany one

Santa Barbara.)

Antonio Olivera to the ranch where they accomplished the survey. Olivera signed the document wherein he affirmed the following:

In the same day month and year standing in the place called the mouth of the Canada of Casmalia for the purpose of verifying the measurements and possessions which correspond to Citizens Lucas Olivera and Jose Maria Valenzuela of the place called "Jesus Maria," all legal requisits having been previously complied with and being present the assisting witnesses, the Surveyor, rope bearers and I the Magistrate Citizens Antonio Olivera [sic], I caused to be measured a cord which contained fifty varas which was examined and admitted and stakes of wood tied to its extremities and of my direction it was drawn over the chamisal easterly from the sea shore (where a stake was driven as a bound) two leagues to the top of a hill near the Rancho of San Antonio [de Todos Santos] and a stake was driven then as a bound. Then by my direction the cord was drawn through the Canada of Santa Lucia two leagues to the bank of the river where a stake was driven as a bound. In continuation and by my order the cord was drawn down the plain of the river [Santa Ynez] northwest one and a half leagues to the sea shore at the mouth of the river of La Purisima; and lastly the cord was drawn over some sand hills north three leagues to the place of beginning, and the measurements were thus finished to the satisfaction of the parties. All which I note officially and authenticate and sign with the witnesses aforementioned.

[signed, Antonio Olivera
filed 1-27-53, George Fisher, Secty.
Board of Land Claims Commissioners
Case 528]

The above boundary was filed for the claims case and appeared regularly in legal documents through 1858. The ranch boundary was surveyed under orders of the United States Surveyor General in 1859. Documents of this era describe the ranch as being "about nine square leagues of land" (Deed A-48).

Burton hired the most reputable land claims law firm in the state to handle his case, Halleck, Peachy and Billings, and they filed on May 27, 1853. The Claims Commission accepted the case on January 19, 1854, and by July 7, 1855, 76 pages of documentary evidence, hand-drawn maps, and testimony of witnesses had been collected. These were certified by the Commission as Transcript No. 528, Docket No. 268. On January 5, 1857, Burton received a court summons to go to the District Court of the U.S. Southern District to prove his right to title. A document signed by Burton and asking for confirmation of title by the courts is extant, but the outcome of that action is unknown. On the county tax rolls of that year Burton was assessed for the 44,000 acre Jesús María Rancho which was evaluated at

\$6,000. Perhaps to quiet title, in 1858 Burton had a deed recorded granting him once again the undivided one third of the rancho he had bought from one Petra Carrillo [sic] (single). When the U.S. Surveyor General ordered the Jesús María surveyed in 1859, the map that was produced had inscribed on it the words "finally confirmed to Lewis T. Burton et al." According to the survey it lay in Townships 7 and 8 and in Range 34 and 35. The beginning point for the ranch was at charred post No. 1 on a rock mound at the mouth of Cañada Casmalia. In 1862 the son of José and Catarina Carrillo and José Carrillo in separate transactions again recorded transfer of "an undivided one-third" of the ranch to Burton. These apparently quieted title once again for Burton as far as the Carrillos were concerned (Case 528; Thompson and West 1883:113; SBTIT).

Burton effected a boundary settlement in 1870 with his neighbors William W. Hollister and Albert Thomas Dibblee, who had purchased the Rancho Lompoc in 1867. By this settlement Dibblee and Hollister quit claimed any of the Rancho Lompoc land included in their patent that lay north of the Santa Ynez River as far east as "Station 19 at the end of same" to the point where the river entered the ocean (Agreements I-49). President Ulysses S. Grant confirmed patent to Luis T. Burton et al., September 7, 1871. Yet, appeals by the Olivera descendents against Burton continued for another six years. Burton won a decree to quiet title against Augustus Hill de Olivera and her husband in 1872 and against another Olivera in 1875. Actions by both Juan de Dios Olivera and José Rafael Olivera came to nothing (SBTIT). The only Oliveras entered upon the Santa Barbara Great Register of 1875, made by the State of California, were Juan Olivera, rancher of La Graciosa (near Orcutt) and José Olivera, a farmer, age 57 living on Casmalia Rancho.

On September 12, 1878 the patent was finally recorded in Santa Barbara conveying "the place known by the name of Jesus Maria" from the United States of America to "Lewis T. Burton and Jose Carrillo." The Carrillo name was, of course, simply a matter of record since Carrillo's portion had belonged to Burton since 1853. Four months later the aging Lewis T. Burton who had been in poor health for several years, was under legal guardianship having been declared incompetent. He died in late May or early June, 1879 (sources are in conflict), and funeral services were held at the Episcopal Church in Santa Barbara (SBTIT; L. Burton File, Santa Barbara Historical Society).

Lewis T. Burton of Santa Barbara

Lewis T. Burton was typical of the aggressive mountain men who arrived in California during the Mexican Period. Born in east Kentucky in 1800, he joined a company of 16 other young men when he was 21 years of age to go west. He came to California with the Wolfskill Party in 1831. Then, like other adventurers of that decade, Burton gave up chasing beavers, as they were becoming scarce, and took to hunting sea otters off the southern California coast and around the Santa Barbara Channel Islands. A few years later he was almost killed by robbers near Port Harford (Avila Beach), but

he escaped and made it to Santa Barbara. The ladies of the Carrillo family nursed him back to health and soon after he married María Antonia Carrillo. Her sister María Josefa was married to the Bostonian William Dana. Upon María Antonia's death, Burton married her cousin. This Carrillo woman, whose name never appeared on the property records of the Jesús María Rancho, was the daughter of José Antonio Carrillo, co-grantee of Santa Rosa Island. She was also the mother of Benjamin Burton who would inherit the subject rancho. Under Mexican law, in order to marry and to own property, Burton had to become a naturalized Mexican citizen. Thus his name was spelled Luis as well as Lewis throughout his lifetime. The Burtons moved into an adobe built by Santiago Burke. Several families had lived in it prior to the Burtons, one of them the George Nidiver family. It was located on the top of a mound which had once been the site of a flourishing Indian village. Contemporaries described it as the most conspicuous feature on the Santa Barbara waterfront. Burton lived in the adobe the rest of his life (Burton File; Thompson and West 1883:45, 48, 51).

Burton continued to hunt otters after his marriage, and one of the best known accounts we have of the other period includes his name. In relating the story of the lost woman of San Nicolas Island, George Nidiver, a fellow otter hunter, told one of Hubert H. Bancroft's interviewers the following:

At the beginning of 1835 Isaac J. Sparks and Luis T. Burton, Americans, also otter hunters, settled here (Santa Barbara) and chartered the schooner Peor es Nada for a trip to the Lower California coast. It left Santa Barbara late April, 1835 and about three months later returned to San Pedro and from there went directly to the Island of San Nicolas for the purpose of taking off the Indians then living there. Sparks who hunted with me for several years afterwards, told about removing the Indians [Thompson and West 1883:91].

The account continues and describes how one Indian woman returned to her island home for a child and was left behind. No further mention is made of Burton.

Burton's adobe on the mound enclosed a square, and since he was a merchant he used part of the adobe as a store. Burton sold practical things but he also carried silks from the east, jewels from Paris, and other luxuries for the families of the Mexican cattle kings. After the American takeover he was considered one of the town's most prominent citizens, and in 1849, in the absence of civil and military authority, he was placed on a committee of three to try some bandits. In 1850 he was elected to a County Council along with his friend Isaac Sparks. As soon as the county was organized he took out his business license, the second from a list of 52. The first business registered was for the sale of liquor; Burton's was for the sale of liquor and merchandise. The county located its first polling place in the corridor at Luis T. Burton's place and made Burton the first County Assessor. Public

documents were posted on the eastern corner of his home. In 1850 Burton entered his own personal goods as worth \$4,056, his real estate as worth \$5,000. This was well below the rich of the county such as Antonio Carrillo, owner of Lompoc Rancho, whose assessed property reached \$39,572. Burton was also the first Santa Barbara Postmaster, and until 1856 he kept the letters for distribution in a candle box at his place for anyone to help himself. Burton's Place on the mound was but a beginning of Burton's holdings in the city. He also owned a lot "formerly known as the Carlos Carillo Place at the corner of Anapamu and Ortega Street" (Deeds L-319) and numerous city lots he bought at sheriff's sales in partnership with S.B. Brinkerhoff. These lots had houses on them and were up on the auction block for delinquent taxes. The former owners in 1857 were with but one exception of Mexican surname: Juan Olivas, Juan Ayala, Jose Dominguez, Romero de Lopez, Mariano Garcia. As Americanization proceeded, Burton's assessed property rose in assessed value, reaching \$26,345.00 in 1857. By then Burton was also a money lender taking back herds of cattle and horses for security on the ranches El Cojo, Guadalupe, Casmalia, and La Laguna (Thompson and West 1883:97, 98, 108, 113, 121; Burton File).

It must have been natural for Burton to emulate the Mexican rich into which he had married and with whom he associated. They were the real barons of the new county. The esteemed in Mexican society had always owned rural land, the more the better. Burton's name appeared on a deed to Lot 1 of Casmalia Rancho in 1855, property deeded to him by the recipient of the Mexican grant, Antonio Maria Olivera. Rancho Casmalia totaled only 8,841 acres. Antonio Avellanes bought Lot 2 from Olivera, and following transactions involving several other Mexican owners, Burton apparently owned it by 1863. The entire Rancho Casmalia was included in his estate when he died in 1879. Casmalia lay along the sea and shared a long southern boundary with the Jesús María Rancho. In 1865 Burton owned part of Rancho Aspe where Thompson and West researchers claim he had 5,778 acres (Thompson and West 1883:128; Casmalia Plat, SBTIT).

Along with his city real estate partner Brinkerhoff and three other Americans, Burton filed articles of incorporation for the Santa Barbara Gas Company in 1874 with a capital stock equal to \$30,000 in gold coin (Misc. B-141). He also filed a mining claim in 1872 (Misc. B-116). He served on a Railroad Committee that hoped to see a line completed to Santa Barbara. In 1874 his property was assessed at \$60,000. Lewis Burton obviously spent most of his time in the city, but on occasion he could be found at a distance. For example, in 1857 when he was summoned to the District Court, the marshal had to travel a round trip of 240 miles in order to serve the summons (Thompson and West 1883:182).

Burton typified the American paisano who had arrived in California during the Mexican era, who married into the Californio society, and who took on the values of the Mexican culture. Yet, as opportunities expanded under American rule, he displayed entrepreneurship and the know-how that gave

him a distinct advantage over the Mexican citizens in matters of commerce, investment, and legal solutions.

In the course of this research no map or public document was found among the testimonials given during patent proceedings that would locate or even mention the adobes built by the original Oliveras. Fortunately the archaeologist Paul Schumacher left a record. In his search for Indian implements and burial places for the Smithsonian Institution in 1875-1876, he wrote that his party visited the Channel Islands and Oregon and then returned to the southern coast of California. They began their trip in San Luis Obispo going to a place on the beach about five miles south of Point Sal. The party camped at Osbi, which was located on the coast at the mouth of Shuman Canyon. On January 25, 1876 the party set out for San Antonio Rancho (Todos Santos y San Antonio) which lay immediately to the east of the Jesús María Rancho (Map 7). A cemetery had been reported "opposite the house of the stock-raiser Olivera" (Schumacher 1877:54). According to Schumacher's description, the archaeological site is probably that of CA-SBa-786 on Rancho Todos Santos y San Antonio, as the landforms sketched by Schumacher and those shown on our present-day maps match very well. (James Olivera, 1868-1952, pointed out an adobe ruin at this location, across the ravine from CA-SBa-786, to Walter Spanne in the 1930s. Olivera identified it as the family home [Field interview, L. Spanne July 29, 1982]). Schumacher's Map 14, Plate 20 locates the Olivera adobe (Map 1, Site 4).

Schumacher continues:

...we went along on our difficult trip toward the mouth of San Antonio Creek, over a country which was hardly ever traversed by a wagon, and, properly, should be reserved only for the roaming vaquero. About four miles from the mouth of the San Antonio and a mile from its right bank is Burton's place, an old, dilapidated, deserted adobe house, and back of it a small pond, near which a cemetery was reported. The house, the lagoon, and even some signs of former Indian huts, were readily found [Schumacher 1877:53].

The "Burton's Place" adobe was precisely in the place at which E.J. Marshall developed his headquarters in the twentieth century and where he incorporated an old adobe into his living quarters. The remaining days of the field trip produced nothing, and Schumacher commented, "From the time we left Olivera's place our trip was a chain of disappointments" (1877:55).

Yet, from a historical point of view, he made another interesting observation. After spending the night in camp near the Burton place the party passed Point Pedernales (Purísima Point?), passed over sand dunes and saw Lompoc Landing under construction, and came to the mouth of the Santa Inez River. Since the party could not cross it, they followed the river bank up to Santa Lucía Rancho, "which estate, by the way, is very large" he

wrote (Schumacher 1877:55, Map 1, Site 3). He also recorded that an "intelligent gentleman" held it at rent.

Schumacher's description of the Burton adobe makes it appear highly unlikely that Lewis Burton spent much time there. The account of the deserted adobe was made just 3 years prior to Burton's death.

James Olivera, on the other hand, did live and work on the Jesús María. He was born while Lewis Burton was still alive but did not seem to know the man personally. He lived until after the ranch became a military base. He had many tales to tell of his family and of how he believed the family had come to lose the grant. One of those tales, printed after his death, concerned the bandit Jack Powers. According to what he had heard as a child, Powers attacked two Basques traveling through the Jesús María some time between 1847 and 1857. One of the Basques, although wounded, got away. He tied his horse to a tree and died. The horse also perished, but from starvation. James related that in 1867 or 1868 his own father, Juan Olivera, found the dead Basque and \$500 in gold on his person. Juan buried the money and went home to the "Olivera Adobe." When he returned to the spot the next day the money had disappeared (Los Angeles Times, August 16, 1953).

Land Use, 1850-1880

Santa Barbara in the 1850s was a cow county on the whole, and second only to Los Angeles County in cattle production. Ranch historian Robert Cleland estimates that there were approximately 50,000 cattle in Santa Barbara County, controlled by a lordly group of cattle barons who also controlled the county's politics (Cleland 1975:139).

Large herds came into the state from the east in the mid-1850s, bringing prices down from \$8 to \$4 and \$5 a head, but prices were back to normal by the time of the drought of 1860-1861. In December 1861 the state had prolonged rains and the pastures were lush, but this was followed by an even greater drought, that of 1862-1864 when cattle starved and the plains were strewn with carcasses. The disaster put an end to cattle raising as the prime industry in southern California, led to many foreclosures on ranch properties, and money was so short in supply that even low interest rates of 5 percent a month failed to attract capital to rural property. This led to the introduction of sheep by the thousands. For example, on the Jesús María the Burtons, or those who leased the land, did not run any sheep in 1866. Yet in 1881, in spite of the severe drought of 1876-1877 which brought an end to large scale grazing in much of southern California, the Jesús María had 10,000 sheep, along with 500 cattle and 40 horses (Storke 1891:107, Thompson and West 1883:298).

Geographically, the northern portion of Jesús María Rancho lay in the Los Alamos Valley, an area of 149,305 acres which spread out between the Santa Ynez Valley on the south and the Santa Maria Valley to the north. The 25 mile long valley also embraced the Ranchos La Laguna, Los Alamos, Todos Santos, Casmalia and the hilly land near Point Sal. Until the 1880s the

principal industry for the entire valley was cattle and sheep raising (Storke 1891:105). The southern portion of the Jesus Maria lay in the Santa Ynez Valley where land use followed a similar pattern. During the 1870s Americanization of the coastal valleys moved rapidly. Men such as John S. Bell, who purchased the Los Alamos Rancho and ran more than 12,000 sheep, laid out the townsite for Los Alamos. In 1876 he and a Dr. Shaw acquired Rancho La Laguna. The Lompoc Valley Land Company, a temperance colony, purchased and began settlement on Rancho Lompoc in 1874. Antonio Tognazzini and his wife, natives of Switzerland, settled on Guadalupe, and the adjacent public lands were brought under cadastral survey in 1871 (O'Neill 1939:392, Thompson and West 1883:215). In the 1870s preemptors or "squatters" throughout California made their homes on unimproved land, but none was reported at that time on the Jesús María.

County roads developed, still the third township of Santa Barbara County with an estimated 665 voters believed its farmers were at an inconvenient distance from the county seat. Since the 1870s were prosperous years, the newspapers were full of talk to form a separate county to be called Santa Maria County. Lack of support at the state level ended the movement (Thompson and West 1883:281). In 1879 the U.S. Coast and Geodetic Survey published the W.E. Greenwell party survey of an area which included Shuman's Canyon to the Santa Maria River and Point Sal (Maps 8a, 8b). It indicated existing roads, some vegetation, and the Lompoc and Point Sal Landings.

Thanks to the opening of Lompoc Wharf in 1876 and of Chute Landing (Maps 9a, 9b) close to the Casmalia Rancho boundary in 1880, the local farmers began to plant cereal crops for shipment. Thompson and West's History of Santa Barbara, published in 1883, claimed that the Jesús María had about 10,000 acres suitable for grains in 1881 (1883:298).

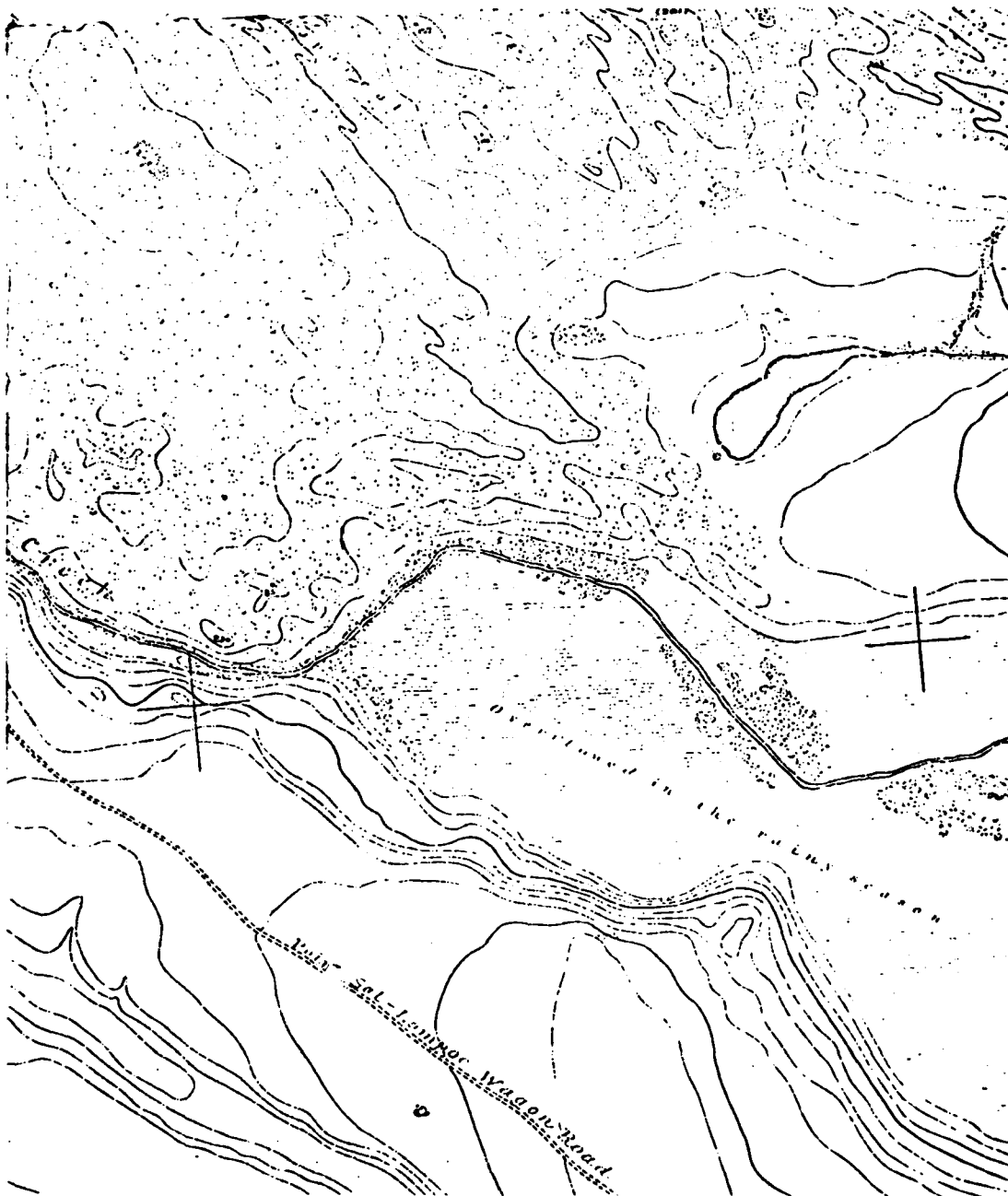
The Ben Burton Sales

Ben Burton, the only son of Lewis, inherited the whole of the Jesús María by court order in 1879, along with a part of the Rancho Casmalia to the north. No records indicate that Ben was a rancher or that he ever spent a night in the so-called Burton Place that Schumacher saw in such a dilapidated condition. We do know that Ben married Frances Stella Tibbetts, daughter of George Parrish Tibbetts, and that they lived in Santa Barbara until a few years after the death of Lewis, when they moved to San Francisco. Stella came from an illustrious family for those times. Her father came west as an Indian fighter, became a merchant, and finally an educator who was well known for his collection of historical documents. A Tibbetts biography frequently appeared in the county histories and "mug books" whereas neither a biography of Lewis T. nor Benjamin Burton would be found.

Ben Burton managed to lease fertile land on the ranch to farmers and the rest of it to cattle and sheep ranchers. In 1883 Ben Burton ran an advertisement in the Lompoc Record, which read "Jesus Maria Rancho for sale, 42,000 acres of choice grain land and wharf." Thompson and West



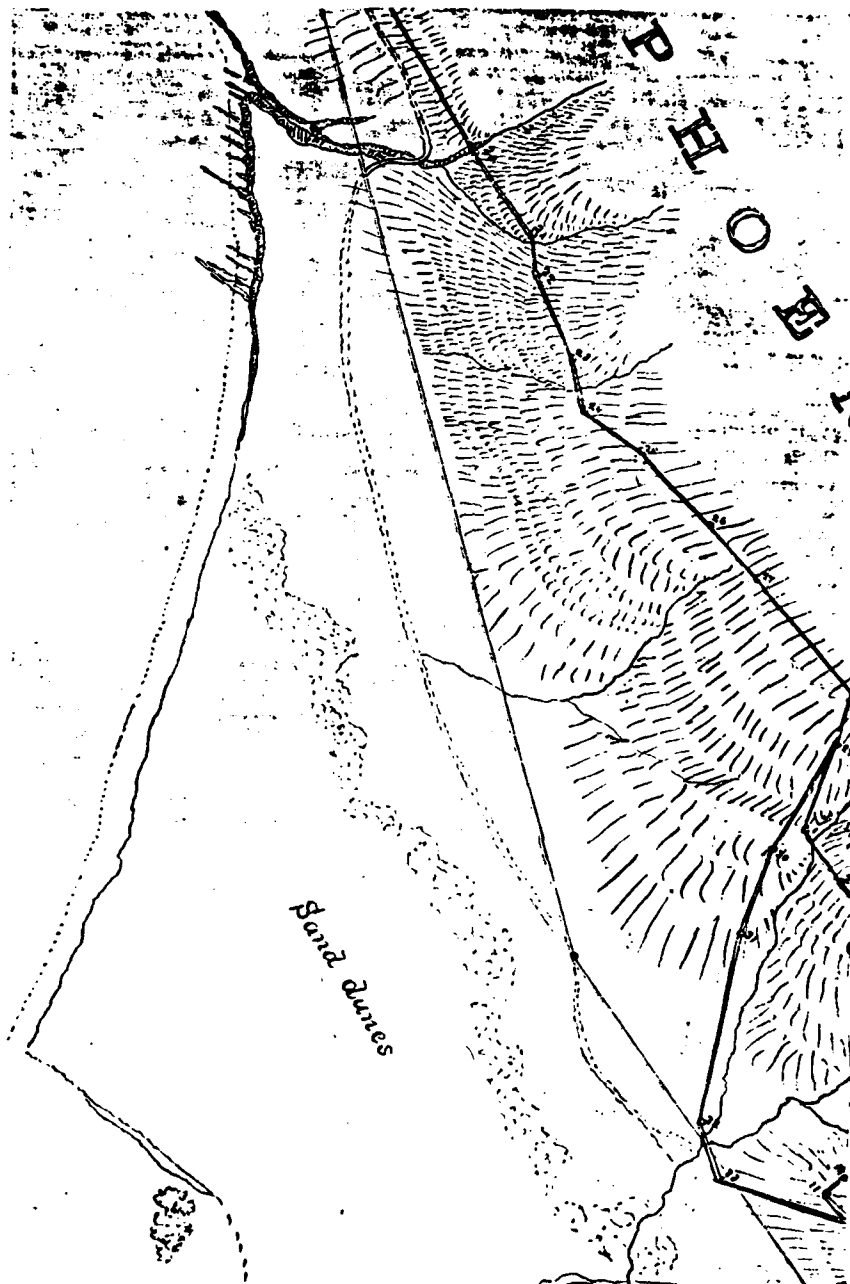
Map 8a. PORTION OF U.S. COAST AND GEODETIC SURVEY MAP, 1879
(Reduced from a copy made at the University of California, Santa Barbara.)



Map 8b. PORTION OF U.S. COAST AND GEODETIC SURVEY MAP, 1879
(Reduced from a copy made at the University of California, Santa Barbara.)



Map 9a. CHUTE LANDING, SHOWN ON A PORTION OF A MAP OF
ROAD RUNNING THROUGH RANCHO OSPE, F.S. COOPER, SURVEYOR. ca 1890
(Reduced from a copy held by the Santa Barbara Board of Supervisors.)



Map 9b. Continuation of Map 9a.
A small portion of Casmalia Creek is shown at the bottom
edge of the map, just right of center.

researchers quoted the price of arable land in the 1880s at from \$10 to \$25 an acre for mesa land, at \$30 to \$75 for valley land, and at \$1 to \$4 an acre for grazing land. Hence, subdivision commenced, and Map 7 supplied by the Santa Barbara Title and Insurance Company is included to show how the ranch lot boundaries were defined. Ben and Stella lived in a house at 2101 Hyde Street in San Francisco, and from there they sold off portions of the ranch as the years went by and mortgaged the remainder (Thompson and West 1883:282; Deeds 25-414).

Burton conveyed the portion north of San Antonio Creek (Lot 1) and a portion of Casmalia Ranch to Henry J. Laughlin in 1885, and Laughlin in turn sold it to Hyppolite Dutard in 1888. Dutard was a grain, beans, and produce commission merchant who lived in San Francisco. Correspondence of 1899 shows that Dutard had a manager on the Jesus Maria Ranch, P.A. Kise, and under him a foreman, James Olivera. One letter discussed the preference for fattening the cattle on the Johnston Range (location unknown) or on the Casmalia portion of the ranch, which leads us to conclude that Dutard was running his own cattle on the ranch. He owned it until his death in 1903 (Letters, Dutard to Olivera, December 5 and 16, 1899).

Albert Packard of Santa Barbara bought 9,039.48 acres of the Jesús María bordered on the south by the Santa Ynez River, on the east by the eastern border of the Jesús María running northerly to the head of Pine Canyon, and on the west by the ocean. The Packard Ranch acquired September 11, 1889 encompassed some of the highland known as Burton Mesa. In 1891 Ben Burton put together a compact parcel made up of the lots designated 3 and 4 of the Jesús María and containing 21.90 and 53.84 acres respectively, which he combined with a 139.54 acre strip of the Rancho La Purísima. This combination was known locally as the Ben Burton Tract. It was bounded on the southeast by the Huerta Mateo Valley. John Wise and Thomas Denigan of San Francisco bought the tract, and in legal documents that portion of the Jesús María involved was thereafter known as the Wise and Denigan strip. Wise and Denigan held the parcel till February, 1903, when they sold it to H.T. Ridisell of Los Angeles for \$97,000 (SBTIT; Deeds 25-414, 86-544, and 86-600).

Neither Ben Burton nor the people he sold to were resident ranchers. Instead they were absentee owners and land speculators who followed Ben's practice of leasing the productive land to others. Tenant farmers paid for use of the land on a share-crop basis. For this long period we have no documentation of ranch development, of improvements on or near the adobe at Burton's Place, or of outlying shacks used temporarily by tenant farmers or used overnite during roundups. As sales proceeded, Ben continued to go to court to quiet title against claims of the Olivera family. These ran from 1893 to 1899 and were filed under the names of José Olivera and Faustina Olivera et al. (Misc. 8-452; SBTIT). Ben Burton cleared title for himself in both cases.

The Ben Burtons at 1900 held only Lot 2 of the ranch. Ben had taken out their first mortgage against it in 1895 (at least the first recorded) with

the German Savings and Loan Society of San Francisco. The Burtons apparently separated at this time. Ben Burton quit claimed all of his interest in the ranch to Stella Burton and moved to New Orleans. In 1898 Stella won a quiet title decree in a Superior Court action brought against her by one Juan Olivera. With this settled, Stella signed an agreement with two trustees, A. Becker and George Tourney, working for the German Savings and Loan Society. The agreement gave the latter a Trust Deed to hold on Lot 2 of the ranch as backing for loans Stella might procure in the future. The Trust Deed rather summed up the status of the old ranch as the century ended, since it referenced the entire Rancho Jesús María. It named the following major exceptions to Stella Burton's holding:

- The land for two wharfs, the Lompoc Wharf and the Meherin Wharf (see Map 10)
- The Dutard portion, Lot 1
- The Packard Ranch
- The Wise and Denigan Strip [Superior Court, Box 635, 4245; Deeds 71-224]

The Ords and Newhalls on the Rancho Todos Santos y San Antonio

The recipient of the Mexican grant, William E.P. Hartnell, died on February 2, 1854, having spent little time on the Todos Santos Ranch. According to a letter he wrote from Monterey to his brother-in-law, Don Pablo de La Guerra, the latter was managing the affairs of the ranch in 1847. Hartnell named Pablo executor of his will, and the names of his wife, Teresa, and the 11 children replaced Hartnell's on the claims case documents then before the U.S. Commission in the year of his death. A letter dated October 6, 1854, written at the Todos Santos Ranch to Juan Adalberto Hartnell, was signed by Adalberto Pedro Hartnell. The writer complained of the fatiguing trip made to Todos Santos from Monterey (Hartnell Letters, Manuscript Collection, Huntington Library). Less than a year and a half later the Hartnells were delinquent in their taxes and the county siezed the ranch. On May 1, 1856 the Santa Barbara County Sheriff proceeded to sell the Rancho Todos Santos at an auction, describing it as a tract of 2,000 acres assessed at \$5,000. One Charles E. Huse offered to pay the taxes amounting to \$72.92, but before the real estate was sold, the Hartnell Estate evidently redeemed it (Deeds A-356). In June of 1861 the heirs were in trouble again, and the ranch was up for sale at a second sheriff's auction. Juan Arata was the purchaser, and Arata also appears in county records as a purchaser of Juan Hartnell's portion of the ranch land on January 27, 1865. Arata sold this same land to James L. Ord July 18, 1865 (Deeds F-17; D-493; E-89). The United States issued final ownership that same year, and Ruth Newhall, a researcher for the Newhall Land & Farming Co., claims that at the time the varying portions of the ranch were still vested in the names of the 12 Hartnells and the names of several mortgagees (Newhall 1958:33). Particular descriptions of the portions may have been on file in the Office of



the Surveyor General of the of the United States in San Francisco, but these would have been destroyed in the fire of 1906.

In 1867 Juan Hartnell and his wife conveyed portions of the ranch to James L. Ord as did Magdalena Hartnell and Juan Arata (Deeds E-688 and F-17; F-219). In 1867 and 1868 James L. Ord came into possession of additional portions of Rancho Todos Santos and what appears to be the whole of the Rancho San Antonio through purchases from Magdalena Hartnell, from Juan Hartnell, and through a sale ordered by court action against the Hartnell Estate (Deeds 3-688; F-17; F-219; G-172). Lot numbers were assigned the different portions of the ranch by the 1880's, and thus it becomes clear that the James Ord holdings were in Lot 4, the extreme northwest section of the Todos Santos and bounded by the Punta de Laguna Rancho, by the Casmalia Rancho, and by the Jesús María Rancho.

A purchase by Rebecca Ruth Ord, daughter of James L. Ord, of a portion formerly owned by Adalberto Pedro Hartnell increased the size of the Ord tract in 1778 (Deeds T-270). Upon the death of James, the widow Louise Ord quit claimed the larger Ord ranch to the daughter Rebecca, a piece containing 2,869.69 acres (Deeds 118-328). Rebecca Ord Pershine (then married to H.H. Pershine) went to court to settle the ranch boundaries with her neighbors to the west, and sold off a few lots bordering the town of Casmalia.

County records show only one notice of action by the Ords against an Olivera. This was in 1886 when James Ord recovered possession through the Superior Court of property "siezed by Juan Olivera" (Notice of Action A-494).

Henry Mayo Newhall bought 5/12 of the Rancho Todos Santos y San Antonio on March 3, 1876, purchasing it, according to the County records, from John Conway of the City of San Francisco (Deeds P-463). Newhall had begun his business career in San Francisco as an auctioneer and merchant, rose to be a Director of the Southern Pacific Railroad, and in the 1870s turned to collecting ranches. He owned five others before buying the Todos Santos Rancho. Newhall died in 1882 at the age of 56, and his heirs formed the Newhall Land & Farming Co. the following year to handle the 143,000 acres of California ranch land and other assets. They deeded the Rancho Todos Santos property to the new company on June 16, 1883. One of the first problems to be taken up was that of what the Newhalls called squatters or trespassers. José "Chiquito" Olivera and several grown sons (Eduardo, Alfredo, and possibly others) claimed some of the Newhall Land & Farming's land. The Newhalls claimed they had heard stories regarding the Oliveras, that they had often sheltered the bandit Tuburcio Vasquez, and they therefore regarded the Oliveras as undesirable. Mayo Newhall, a lawyer by profession, opened negotiations with the Oliveras and rode out to their home with an interpreter. Jose ("Chiquito") claimed he had a grant to the land, but could not produce the papers, so Mayo suggested they settle it in court and Jose agreed (Newhall 1958:61). The documents for Superior Court Case 1290 favored the Newhall Land & Farming Co. with a possessory decree over

the Oliveras on July 23, 1888, and tell us several things. Struggle for possession between the two parties had gone back over several years, the defendants being driven off the land periodically and again returning as they did, for example on June 15, 1885. The disputed property is described as that of the Newhall holding of 5,943.63 acres of land, thus giving us little evidence of where the Oliveras cultivated land. However, a year before (on September 6, 1887) Deeds 16-637 recorded that Jose Olivera deeded "to Eduardo Arrellanes" an undivided half of all that real property situated in the County of Santa Barbara, described as follows:

Commencing at the corner No. 2 of the Rancho Jesus Maria thence N 64 3/4, W eight 60/100 (8.60 chains) to Post J No. 2 at the top of a brushy Mesa, thence along said mesa on the west side of the Canyon N 10° W 20 chains, to a point of a stone mound marked J No. 3 thence following along E edge of mesa N 5 1/2° e. 13 chains to post marked J No. 4 in a stone mound, thence N 21° 35' W 29.60 chains, to post marked J No. 5 thence N 62° W 10 chains to a large stone mound on a high rocky point thence S 68° E 29.80 chains to another high rocky point: thence N 64 1/4 W 22 chains to a live oak tree 2 feet in diameter marked J No. 8 on south slope of hill: thence S 19° East 42 chains to a post marked J No. 9 on top of high rocky hill: thence S 59° W descend along rocky ridge 80 chains to place of beginning, a portion of the Rancho Todos Santos.

[José Olivera (his mark)
Deeds 16-637].

The Arrellanos family were part owners of Rancho Guadalupe to the north. The acreage described appears to be in both Lot 4 (Ord land) and Lot 5 (Newhall land) of Rancho Todos Santos y San Antonio and in Casmalia Rancho (Map 6). The Olivera Adobe Site (Map 1, Site 4) is on the described property. We may speculate that José Olivera was attempting to prove title by entering a transaction in the County Book of Deeds.

In 1888 José Olivera testified in Superior Court Case 1290 that he based his claim upon the fact that he had bought the land from his father in 1855, came to live on it then, and had lived there for 32 years since. His name was José Olivera y Romero. His father had given him a written instrument. His attorney pointed out that they wished to show that the Oliveras had taken possession under color of title and that the disputed land was within the juridical bounds of the Casmalia Ranch. He submitted the papers for the Casmalia claims case, No. 209, claiming that the land had been surveyed as part of the Casmalia Ranch. José testified that his father had not lived on that land, but instead lived "a little further down because there was no water there at that time." Several witnesses testified that José Olivera had an adobe house 30 by 40 feet in size with 5 rooms, about 4 acres fenced, a small vineyard, 75 acres under cultivation, and described the Olivera tract as

being about 400 acres in all. The Oliveras could not produce proof of a grant to the land, nor could they produce papers proving they had paid taxes. The Newhalls could.

According to Ruth Newhall, when the court action went against Jose Olivera and his sons, the father moved to Los Alamos. The sons remained in the adobe, refusing to cooperate with sheriff's deputies who forced them to move out on several occasions. Finally, she recounted,

It was necessary to make a drastic move and a man was found, who, for \$100, would go out to the premises and take possession for us. One day when all of the members of the family were absent, the house caught fire and fire consumed all of the roof, floors, etc. The Oliveras left and never returned [Newhall 1958:62].

An Olivera account is not available.

In carrying out a title search and in addressing the question of historical land use of the western portion of the Rancho Todas Santos y San Antonio, this researcher could shed but little light upon house construction or date of occupancy of the collapsed wooden house and the house that once stood upon the now buried foundation at Site CA-SBa-1174. The site lies on the Lot 1 of Todos Santos (Map 14), Newhall Land & Farming Company property since 1876. No subdivision or sale is recorded. We may speculate that dwellings were built here to house Newhall employees, since organized ranch development apparently began with their purchase. Ruth Newhall writes of no other squatters on the property aside from the Oliveras who had to be removed.

ENTREPRENEURS AND MODERNIZATION

Wharves to serve the Jesús María

Ben Burton could advertise his 42,000 acre Jesús María Rancho for sale as land and wharf because his father, Lewis, had cooperated with wharf builders at the adjacent coast. As Americans moved into the nearby coastal valleys in the 1870's they depended upon the Point Sal Landing built in 1871. Since this was 21 miles from the Temperance Colony town of Lompoc and all of the new settlers had to bring in lumber for their homes by ship, a wharf close to town was in demand. Lewis T. Burton signed an agreement with E.A. Hatherton of San Francisco in 1875 allowing Hatherton and others to build a wharf into the Pacific Ocean at any point on the coast line of Jesús María Rancho between the mouth of the Santa Ynez River and Point Purisima (Deeds 0-55). Burton would also convey to them ten acres in a rectangular form for buildings and a right-of-way 100 feet wide through the rancho for a highway or railroad or both. The developers had a year within which to complete the wharf, or the land would be reinvested in Burton's name. By the end of the year Lompoc Wharf was partially open for business, and

Hatherton had paid Burton \$4,000. Hatherton and his partner, Daniel Sweeny, located their wharf about half way between the mouth of the Santa Ynez River and Purisima Point, and when it was completed it extended 250 feet out into the ocean (Deeds B-280; 0-542). Lompoc Landing operated under a franchise granted by the County Board of Supervisors to the Lompoc Valley Land Company under which wharfage was exercised (Deeds W-481; W-484). Business extended to the warehouses and other structures on the 10 acres at the foot of the wharf. The 1879 Greenwell map indicates five structures at the foot of the wharf and two outlying buoys (Map 8a). In 1881 the Land Company applied for permission to erect a chute and lighter landing. Hatherton and Sweeny developed a road from the wharf east to Pine Canyon where it joined the wagon road, Lompoc-Point Sal. The wharf was a big success and served Lompoc steadily until the railroad came through to run it out of business. This was so even though in rainy weather the roadway could become a sticky mire requiring a 3-day round trip for the teamsters (Lompoc Legacy 1965).

The Point Sal Wharf lay to the north of the Jesús María, and farmers complained about the high rates charged there for shipments to and from San Francisco. A French-Canadian, Lewis St. Ores, claimed in 1879 that he could build a good landing for lumber and grain just south of Point Sal and could save them all a lot of money. Some of the local men formed the Los Alamos Chute Landing Company and raised \$21,000. Ben Burton sold the group ten acres of Casmalia Rancho about 2 1/4 miles north of Casmalia Creek and the landing opened in 1880 (Deeds 131-12) (Maps 9a, 9b). Owen H. O'Neill, for many years the Santa Barbara County Surveyor, described in his History of Santa Barbara County the way in which schooners were loaded:

From the road which encircles the face of the cliff there is built out a wharf about 150 feet long, which projects over the sea forty feet, at an elevation above the surface of the water of about eighty feet. At the outer extremity of this wharf a frame-work is erected, in which a slide, which works vertically, is placed. From a firm anchorage in the rocks of the cliff a wire cable, about three-fourths of an inch in diameter, stretches over this slide and about 600 feet out to sea, to a buoy firmly anchored on the bottom. The slide on this frame serves to elevate or lower the cable. Upon this cable is suspended permanently a traveler, which works easily back and forth upon it by means of nicely adjusted sleeves. To this traveler is suspended cages of various sorts, depending upon the nature of the material to be transported. An engine upon the wharf furnishes all needed motive power [1939:299].

St. Ores petitioned for a road to connect the wharf with Santa Maria. Chute Wharf did a lot of business for Lompoc as well.

A few years later the Meherin Brothers, Mark and Michael, who were proprietors of a lumber yard at Pismo Wharf, believed they saw enough

wharfage business at Lompoc to build yet another wharf on South Jesús María Rancho (Lompoc Record clips in Book A, Pioneer Lompoc Historical Records, 1882). They bought 10 acres of land from Ben Burton south of the Lompoc Landing and on Lot 8 of the rancho. Securing the right to construct a wharf from the county, they went about raising cash for the "Peoples Wharf" (Map 6). In April, 1888, the Meherins as president and secretary of the California Steamship Company went about the Lompoc Valley talking to farmers and succeeded in selling subscriptions ranging from \$5 to \$500 for their venture. By October they had raised \$3,000 for machinery, and in December they had completed the landing, placing W.S. McKay in charge. Two years later their ad in the Lompoc Record boasted that a steamer from San Francisco stopped there every week. California Steamship acquired other 10 acre parcels on Lot 8 in 1891, but we have no indication as to how they were used or even how long they were kept. That year the Lompoc Record printed an article on Michael Meherin stating that he was willing to sell Meherin Wharf for \$26,000. Business was actually slow, and the Meherin brothers fought off various lawsuits and attachments. These were instigated not only by shippers but also by their own agent, W.S. McKay. In 1892 the donkey engine at the wharf, not being lashed securely when hoisting lumber for a schooner, fell over and broke. Another old engine was brought into use until one of the castings broke, and then horses took over the hoisting. A July storm the following year washed away the People's Wharf. The California Steamship Company persisted in the area, buying up the 10 acres at the foot of the Lompoc Wharf from the Lompoc Valley Land Company in 1893 (Lompoc Historical Records; Deeds 6-461, 20-182, and 24-292; SBTIT).

Mining

Perhaps the only mining that has ever taken place within the study zone has been on the beaches. William Irelan, State Mineralogist, in the Tenth Annual Report published in December 1890, included the following item:

LOMPOC BEACH MINES

Seven miles north of Point Pedernales, and twelve miles west of the village of Lompoc, is a long beach where gold in considerable quantities has been obtained during the last two years from the washing of the sands. The auriferous ground extends northerly some two or three miles to the opening of the valley of the Santa Ynez River, two miles south from the mouth of the stream. Through this extent the bluff is from twenty to thirty feet high, being a cemented mass of sand and gravel in horizontal layers as if it were the channel of an ancient river. At the base of this the sand beach of the ocean slopes away to the water in a width of from one hundred to two hundred yards; the waves at times beat against the bluff. During heavy storms the light gray sands are washed away, leaving a surface of black ferruginous sand, which is

accompanied by fine particles of gold and platinum. In other storms the gray sand is returned to a depth of four to six feet over the black sand, and this is the usual condition.

Mining operations were commenced here in February 1889. The storms of the ocean and other circumstances prevented continuous working, but during the period to June 20, 1890, there was taken out about \$6,600 of gold and platinum; in doing this they were able to work about half the time. The usual formation is from four to six feet of gray sand, beneath which are thin strata of from half to two inches of thickness, alternating with gray sand, in which there is a little gold, making a stratum of auriferous sand from twelve to eighteen inches in thickness. That portion nearest the bluff is richer than that near the water, the pay belt being from forty to sixty feet in width. The implements used are shovels, sleds, and teams, a sluice box ten feet long set on rockers, bottomed with blankets, riffles, and quicksilvered plates, pumps for raising water into sluices, also retorts.

The method of mining is to strip the barren sand to the gold-bearing stratum, then shovel the gold-bearing sand upon a sled and haul it to the place of washing. The sand is shoveled into the inclined rocking sluice and washed with a gentle stream of water; the gold, platinum, and black sand are caught upon the blankets, riffles, and silvered plates.

The sands yield from 35 cents to \$1.50 per ton; ten to twenty tons are washed per day. The value of the gold is about \$15 per ounce. A large percentage of platinum accompanies the gold--in some of the claims exceeding the gold in quantity. One of the owners of a claim states that in June, 1889, the waves carried off all the barren sands of the beach, leaving about an inch of black sand rich with gold. He collected all that he was able to at every low tide, and at every high tide the rich deposit was renewed. Soon another storm returned the barren sand and the "bonanza" was covered to a depth of six feet. He believes the gold comes from the ocean, but the general opinion is that it has come from the breaking down of the bluff by the waves beating against it. The owners of the claims report they are enabled to make but from \$1 to \$5 per day to each person engaged, wages being \$1.50 per day and board for white men, and \$1 per day without board for Chinamen.

In the long stretch of beach, gold is found in several localities from Point Pedernales to Point Sal, twenty miles. It being so disseminated, it is difficult to obtain in such amounts as miners desire.

The depth of sand and gravel on the beach is unknown.

One of the miners assured the writer that he knew of a vein of platinum, but as it was on granted land, he would not divulge the locality [Irelan 1890:598-599].

Thompson and West in their article on Casmalia Rancho claimed that beach sand there was mined for gold in 1881, \$2 or \$3 being possible per man in a day (Thompson and West 1883:298).

Claimants located five mines on the Jesús María Rancho in February, 1903, but the following year none of the parties filed "proof of labor" and thus it may be presumed that little or no impact was made upon the land. The claims are close to each other and at least two were adjacent to the Lompoc Landing property then owned by the Pacific Coast Steamship Company. For example, the "Last Chance" location notice read as follows:

Commencing at a stake and monument near the southwest corner of land owned by the Pacific Coast Steamship Company...known as Lompoc Landing; thence north along the west line of said land and 50 feet to a stick and monument known as the "central monument." Thence north 750 feet along the lines known as the Burton Ranch to a stick and monument thence west to the low water mark of the Pacific Ocean thence south 1500 feet and east to place of beginning [Misc. G-277, see pp. 278-270].

The "Gobbler" used the "Last Chance" as a point of reference. The other three, the "Just in Time," "Desert," and "Pacific," lay adjacent to these (Appendix 9). On Casmalia Ranch to the north, about the same situation presented itself. Four parties located seashore mines and filed location notices, but according to county records, none was ever patented. They were named the "Ranier," "Minor," "White Horse," and "Maud M." (Misc. D-427-431, 459).

Oil

Oil development made no direct impact upon the study zone until 1948 when the Union Oil Company began a series of test wells. However, the history of the Jesús María was much affected by the Southern California oil booms which commenced around the turn of the century.

The first oil discoveries in Santa Barbara County followed upon the arrival of Professor Benjamin Silliman, a geologist from Pennsylvania, who came west in the 1860s. He sent back enthusiastic reports to the east, told capitalists there to buy Ojai outright, and as a result several syndicates were formed to exploit the seeps Silliman saw around Ventura and Santa Barbara. This boom died swiftly, and the newspapers printed derisive stories about Professor Silliman's prediction that "California will be found to have more oil in its soil than all the whales in the Pacific Ocean" (Prutzman 1913). By the

1890s Silliman's prophesy was on the way to vindication in the southern parts of Santa Barbara County, yet until 1899 the northern portion was entirely unknown as an oil-producing territory. It was then that A.H. McKay and William Mullholland of Los Angeles made a favorable geological report for the Carreaga tract of the Los Alamos Ranch. The two men leased part of the tract and formed the Western Union Oil Company. The third well drilled in August 1901 provided pay quantities of oil.

Even more important for the Santa Maria district was the arrival in 1897 of W.W. Orcutt. Orcutt graduated from Stanford in their first class in 1895 and came to work for Union Oil two years later. He set up a regular geology laboratory for the company, and drove his spring wagon loaded with supplies and instruments all over the Santa Maria Valley looking for signs of oil. He made the first map of the area and located the Lompoc and Santa Maria oil field districts. Orcutt Field opened in 1901, and through Orcutt's recommendations Union Oil purchased about 90 percent of their holdings in California. Orcutt eventually became a vice president of the company (O'Neill 1939:399-400; Interview, Martens).

Union Oil bought out the Western Union Oil Company on the Carreaga tract, bought out small owners of land nearby, and also large tracts. The company was able to recycle its funds by purchasing a certain piece of property, having the deed rewritten so as to reserve all sub-surface and the necessary entry rights for itself, and following this with a quick resale of the surface rights. In this way Union Oil got back its initial capital for its next land purchase (Interview, Martens). Union Oil began purchasing the Jesús María in 1903. By December 1905 it owned all of the ranch north of the Packard Ranch with the exception of right-of-ways to the Southern Pacific Railroad and county roads. A year and a half later Union Oil sold this and other land including Casmalia to the Jesús María Corporation, excluding the sub-surface rights which Union Oil had reserved for itself through a carefully drawn up deed (Deeds 89-200; 112-337; 119-51) (Appendix 4). Union Oil extended those sub-surface rights to adjacent real estate and now has sub-surface rights to as much as 80,000 acres in the area nearby, including some 40,000 acres under Vandenberg Air Force Base. Present day officials at Union Oil look back with wonderment on the man who lay behind these timely purchases. They are not quite sure who he was in the case of Jesús María Rancho, but concede it could well have been their geologist, W.W. Orcutt (Interview, Dahlgren).

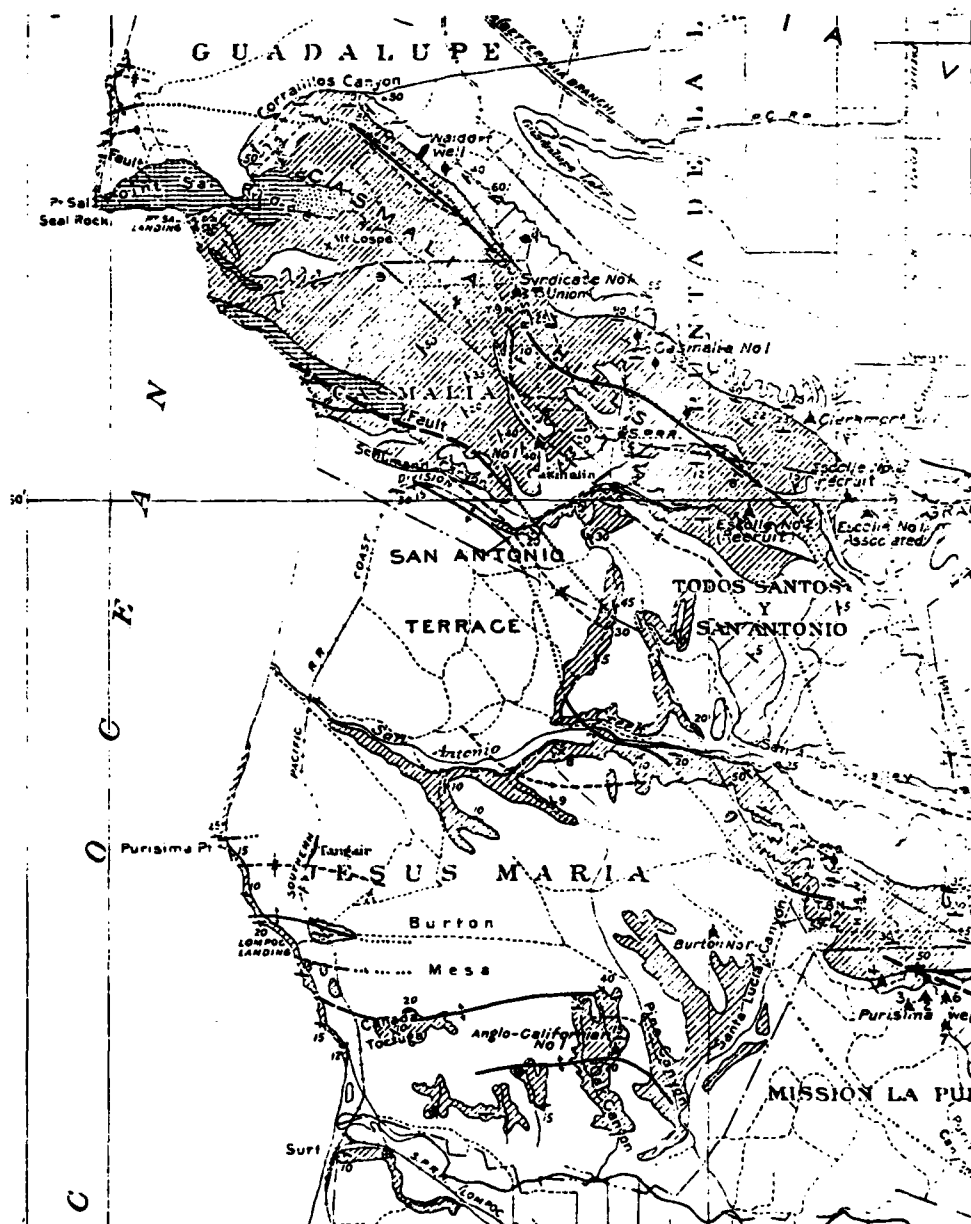
Oil fever, of course, affected all of the ranch owners in the general area. They had the land but not the money for development, and the practice in those days, as now, was to lease it out to those who could afford to exploit it and to take the chances. As an example of these risks and of the profits to be made, we can look at a "Statement of Possibilities" written by some San Francisco financial experts for a drilling venture on the Bell Ranch fifteen miles southeast of Santa Maria. Their advise on capital required reads:

While the total cost of developing the property would be about \$10,000,000 for 200 wells, most of this money would be taken from the ground as development went on....You would assume 6% interest on the first \$1,000,000 in six years, but a total profit of \$23,700,000 in 17 years is a return on the initial 1 million spent on development, all aside from the cost of the property [Bell Tract File, Stanford University].

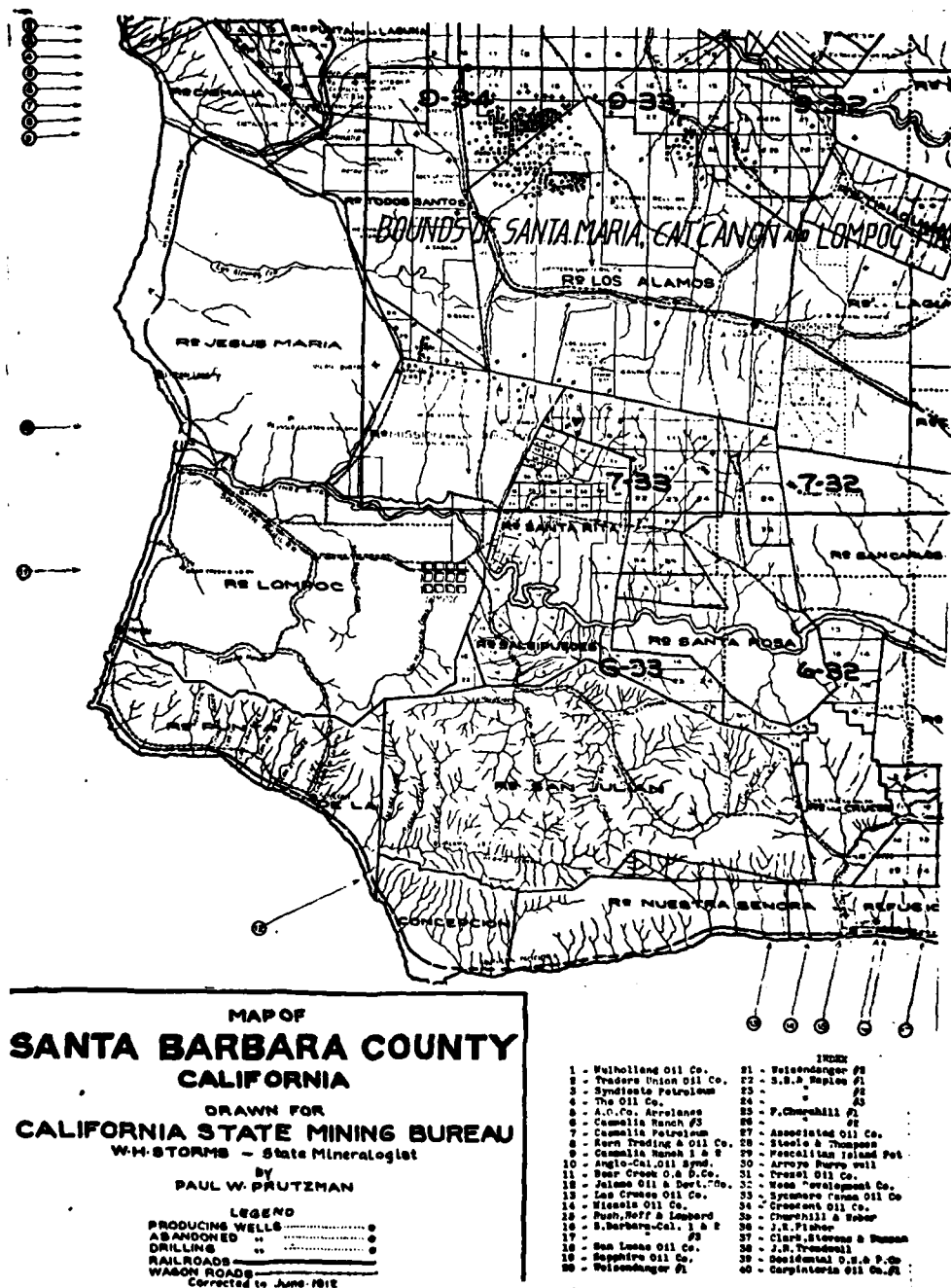
Antonio Tognazzini owned some of the former Burton property on Casmalia Ranch in the 1890s, and in November 1899 he granted "the sole rights to produce petroleum and natural gas from the land on the eastern half of Rancho Casmalia containing 2,800 acres and reserving 20 acres around the buildings" to a group headed by C.C. Morehead. The Morehead crew located a prospect well on Shuman Canyon about three miles northeast of the Southern Pacific Railroad's Casmalia Station in early 1900. By July this well was 200 feet deep and had struck a formation said to be chalky-looking rock and shale. The Casmalia Ranch, Oil, and Development Company was successor to the Morehead group. Five years later when the lease expired, Tognazzini made a similar agreement with the Syndicate Oil Company. The Muscios on Casmalia Ranch made an agreement with Pan American Petroleum while Frank Garbutt sold outright to Union Oil in December of 1905, the same month he sold his Jesús María property to Union (Leases E-329-335, F-93-94, Watts 1901:104; Deeds 112-337).

Ralph Arnold, consulting geologist and petroleum engineer from Chicago, Illinois wrote in 1908 that California's oil ranked first in value among all of the oil producing states in the country. Within California he outlined 10 districts and ranked the Santa Maria District third in value of production. Still, in 1907 there were only two drill sites on the Santa Maria District oil map located on the Jesús María: Burton No. 1 drilled by Union Oil on their Burton Lease located in the Ben Burton Tract and the Anglo-Californian No. 1 to its west on the Packard Ranch (Map 11). Anglo-Californian drilled a second well on the Packard Ranch within 5 years, but further development on the Jesús María had to wait at least 3 decades (Map 12). This was so even though numerous wells had been successful on Union Oil's Lompoc Field to the southeast and in the Orcutt Field to the northeast. Also, geologists in these early years had suggested test drilling north of Shuman Canyon near the coast, at two anticlines on the San Antonio terrace, on a northeastern portion of Burton Mesa, and at the anticline at the head of Santa Lucia Canyon (Arnold and Anderson, 1907; Bell Tract File).

In 1948 Union Oil successfully exploited their sub-surface rights on the Jesús María by commencing with test wells on the San Antonio Terrace. The first, No. "Jesús María" 1 on the northwest corner of Section 34, Township 9 North, Range 35 West, initially produced 36 barrels a day, no gas. Union drilled a second well close by, but both No. 1 and No. 2 were abandoned when the company failed to find a suitable level of commercial production.



Map 11. GEOLOGY AND OIL RESOURCES, 1907
(USGS Bulletin 322 reduced)



Map 12. SANTA BARBARA COUNTY OIL DEVELOPMENT, 1912
(reduced)

They both appear on maps today as dry wells (Map 13a, 13b). The drilling reports reveal the following:

The top of the Miocene formation was found at 450 feet in well No. "Jesus Maria" 1 and is found at the surface 500 feet to the south at the site of well No. "Jesus Maria" 2. The top of the Knoxville basement formation was found in these wells at 2,180 feet and 1,638 feet, respectively [California Division of Oil and Gas 1952:70-71].

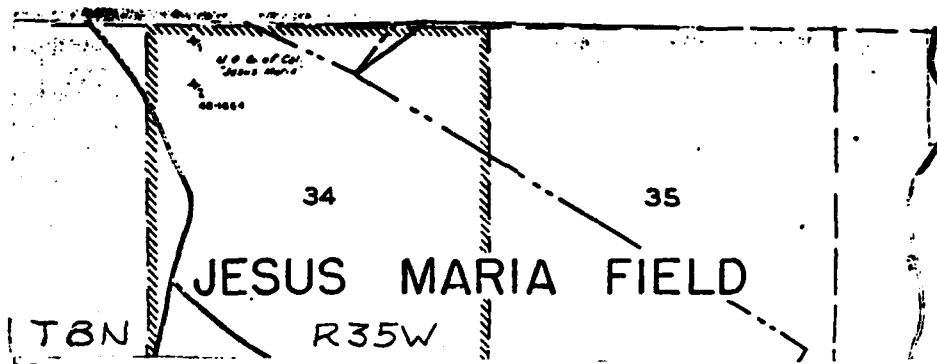
Union Oil's geologist then picked out a site to the south of this. Roy Martens, the company's land officer, staked it out, and here the important discovery well, the "Jesus Maria" No. 4, came in. The crew placed it on the pump on September 19, 1952, and the well initially produced 301 barrels a day of 9.5 gravity oil along with 130 barrels of water, no gas. In 1952 alone it produced 8,199 barrels of oil. Drilling reports state:

The well was drilled to a total depth of 3,893 feet and completed in an interval of fractured Monterey shale (Miocene) from 3,409 to 3,755 feet. The top of the Miocene Formation was found at 2,146 feet and top of Knoxville basement (Cretaceous at 3,845 feet) [California Division of Oil and Gas 1952:70].

Geological charts of the Jesús María Oil Field are included as Figure 1. The charts show a typical electric log from the surface down to the Franciscan layer, a contour map of the upper surface of the dark brown layer, and a cross section through the contour map.

Union went ahead and developed the area, drilling six producing wells and several dry holes. As Roy Martens recently recalled, Camp Cooke was rather dormant in those days so Union Oil obtained permission from the Army to drill the wells and to use the existing roads. Union roads were built out from them to the drill sites. Some of the wells had quite a bit of water in them. Map 8 shows that between the producing wells on San Antonio Terrace and Union's Lompoc Field three dry holes are strung out at equal intervals to the southeast. In 1957, after Vandenberg Air Force Base took over the Jesús María property, the Air Force asked Union Oil to shut down the wells and to move out. The wells had heavy oil and were a difficult operation anyway, and the company capped them, covered them up, and left.

Present day pressures to exploit domestic oil resources have led to the reopening of three of the old holes on a test basis. The Jesús María Field produced 22,300 barrels of oil and 73,700 barrels of water in 1981. Union Oil has not done any new drilling on Vandenberg Air Force Base. Union's current activity on the base has centered upon a seismic survey directed toward finding out more about the substructure of the earth and how to explore at some time in the future.



STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL & GAS

SCALE IN FEET
2000 0 2000 4000 6000 8000

ANNUAL REVISION
APRIL 25, 1981
UPDATED OCT 17, 1981

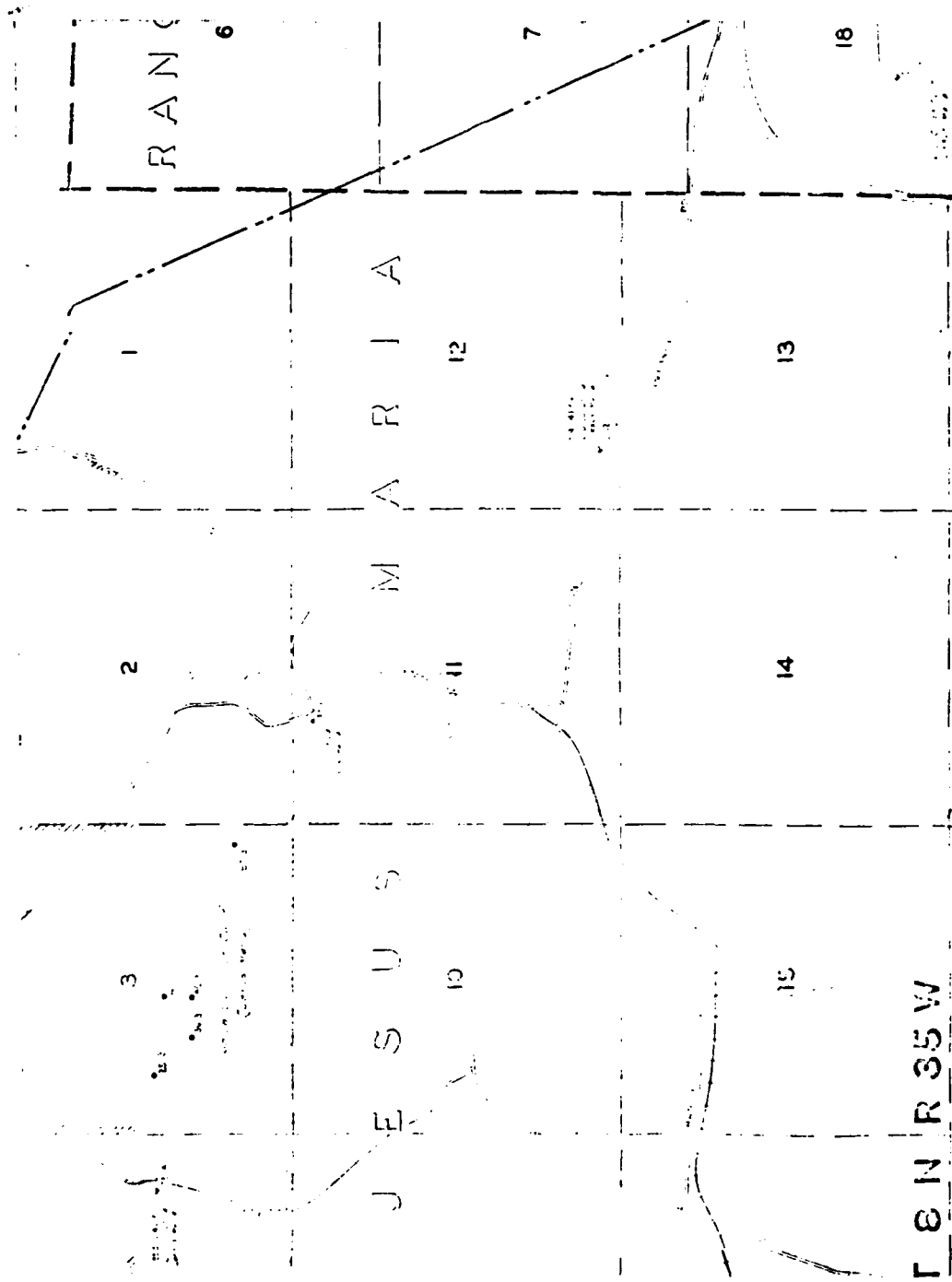
LEGEND

- | | |
|---|--|
| • DRILLING | ✱ STEAM FLOOD |
| ◊ DRILLING - IDLE | ✱ OIL WELL CONVERTED TO WATER DISPOSAL |
| ✱ ABANDONED - DRY HOLE (showing year drilled and total depth) | ✱ DUAL PRODUCING AND DISPOSAL WELL |
| • COMPLETED - OIL | ✱ OIL WELL CONVERTED TO WATER FLOOD |
| ◊ IDLE - OIL | |
| ✱ ABANDONED - OIL | |
| ✱ COMPLETED - GAS | |
| ◊ IDLE - GAS | |
| ✱ ABANDONED - GAS | |
| ✱ GAS - OPEN TO OIL ZONE | |
| ✱ WATER FLOOD SOURCE | |
| ✱ COMPLETED - WATER DISPOSAL | |
| ✱ COMPLETED - WATER FLOOD | |
| ===== FIELD BOUNDARY | |

DIVISION OF OIL & GAS
1416 9TH STREET
SACRAMENTO, CALIF. 95814

Map 13a. PORTION OF GAS MAP 311, STATE OF CALIFORNIA MINING BUREAU, DIVISION OF OIL AND GAS, 1981
(Copied and reduced)

6)



Map 13b. ANOTHER PORTION OF GAS MAP 311
(Reduced, see also Map 13a.)

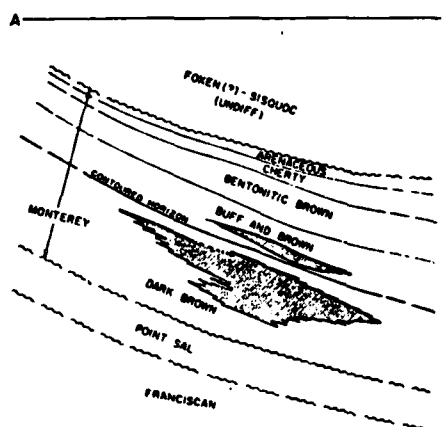
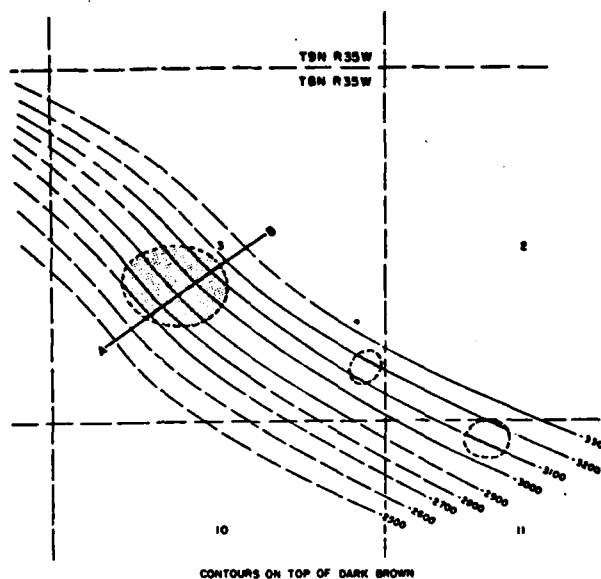
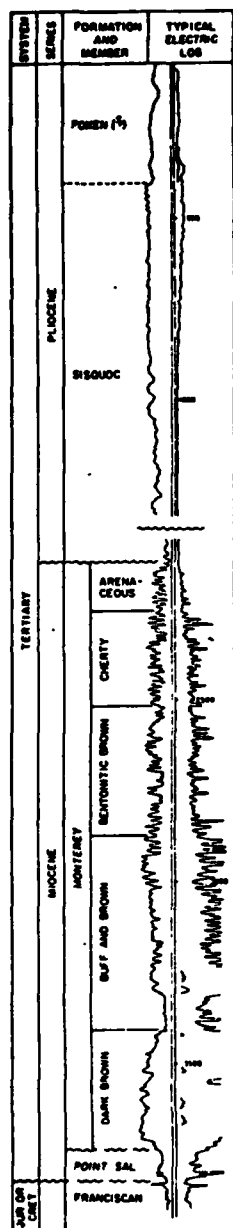


Figure 1. JESUS MARIA OIL FIELD
(California Division of Oil and Gas 1952)

Roads

Wagon and Automobile Roads. The W.E. Greenwell map published by the U.S. Coast and Geodetic Survey in 1879 is the earliest record seen in the course of this research showing the old wagon roads serving or crossing over the Jesús María Ranch (Map 10). These roads serviced the town of Lompoc, Point Sal Landing, and Lompoc Landing. Greenwell's map shows a road north along the coast from the Landing, but it terminates in the sand dunes on the Jesus Maria.

Residents began arriving in Lompoc in 1874, and until the Lompoc Wharf south of Purisima Point was completed at the end of the following year, the colonists had to go up to Point Sal to get the lumber for their new homes. Rafting the lumber ashore at Point Sal Landing was a difficult task, but the wharf was well known and afforded regular stops for vessels from San Francisco. It continued to draw the Lompoc business until Chute Landing was built and until Lompoc Wharf had a chute and lighter landing of its own in the early 1880s. To reach Point Sal, farmers in the Lompoc Valley traveled a wagon road going northwest out of Lompoc. It continued through Pine Canyon, crossed San Antonio Creek, and tended northward to Shuman Canyon. There it joined the Point Sal-Santa Maria Valley wagon road just west of Matanza. The juncture was at approximately 120° 35' W longitude.

When Lompoc Landing was completed in 1875, Lompoc residents traveled to it on present day Ocean Avenue, going west to where it joined the foothill country at Lompoc Canyon. The road then wound around the hills and valleys westward, passing close to the old Huyck settlement. Maurice "Babe" Huyck leased the Packard Ranch parcel at the north side and near the mouth of the Santa Ynez River. He engaged in farming and dairying, and local people named the little settlement there Huyckville. Passing close to the Huyck settlement the road went to a point known as Baroda. Here it turned northward, crossed the Santa Ynez river, and ended at the Lompoc Landing. The road was difficult and hazardous, and in the winter the river near the sea was impossible to cross; the teamsters therefore made the river crossing inland north of town and drove their teams across the Burton Mesa. On this road they left Lompoc, crossed the Dyer Bridge, drove up through Pine Canyon, and took the wagon road shown on Greenwell's map west across Burton Mesa to Lompoc Landing. J. Ben Burton gave the right of way to the county on April 2, 1889, and the 5.73 mile road was declared a public highway in the Fifth Road District (Deeds 27-294) (Appendix 10). When Packard brought the south Jesús María it was known as the Packard Road (Lompoc Legacy 1975, Deeds 24-292).

Some winters the Packard Road to the coast was so flooded none wanted to try it, but eventually a caravan would set out for the Landing. One teamster recalled the following:

We crossed at the Dyer bridge and started up Pine Canyon with water all over the roadbed. The county had men out with their shovels ditching the water as best they could under the

circumstances. We pulled up Pine Canyon for several miles then turned up a side canyon road to the Mesa. The wind was blowing and the rain seemed to be coming down by the bucket full.

John Copeland lead the way, as he had more experience on the Mesa than most of us, but not for long as John's wagon bogged into that slushy earth, his wheel horses were wallowing and down. We took out the wheel horses and put a snatch team on then dragged the wagon out like it was a scow. Each team tried to turn in some or any direction to miss the bog without success for we all went down and had to be dragged out in mud up to the wagon bed.

Never in my lifetime of teaming have I ever seen more courageous animals nor a better bunch of men. There was no whipping or clubbing--only shouts, yelling and swearing. The horses, their thighs trembling with the strain of pulling, looking toward their drivers asking in their only way, "what next shall we do?" [Lompoc Legacy 1975].

Following flags set out by a county road man, the teamsters finally sighted the string of warehouses at the Landing and pulled their wagons into one that had been made ready by the shipping agent, Bill McKay. Mrs. Smith, who ran the hotel, brought out pans of hot biscuits and coffee, and the men stood around a big wood stove to dry out. They returned to Lompoc the next day, their wagons loaded with urgent supplies, such as drums of kerosene for the Lompoc merchants.

Lompoc's population reached 1,400 in 1880, and the county recorded a plat for a proposed wagon road in Pine Canyon (County Surveyor, Book 2, p. 34, March 5, 1880). Two years later, on October 14, 1882, Ben Burton deeded the 50 foot right-of-way up to the Mesa through Pine Canyon. In 1890 Burton again granted a right-of-way for a road going northeast through Santa Lucia Canyon. This road, known as the Lompoc-Guadalupe Road, tended northeast and joined the Santa Maria-Point Sal Road north of San Antonio Creek on the Todos Santos Rancho (Deeds 27-294; Road Book B-111; 1889 County Map [Map 14]). The conveyences on paper did not make clear to everyone just where the public highways were; they were evidently poorly marked and poorly drained throughout the 1880s. A news item in January 1887 read, "People are plowing and fencing our public highway. Obstruction and annoyance must stop" (Lompoc Legacy 1975).

In June 1899 the first train came into Lompoc Station on a spur from the then completed Lompoc-San Francisco line. Two years later (1901) the gap between Los Angeles and Lompoc was closed, and this meant that the old Lompoc Landing would soon go out of business.

Among the U.S. Geological Survey historic maps is a Guadalupe Quadrangle map surveyed in 1903-1904 and published in 1905. In addition to the roads discussed above, dirt roads are shown on either side of the San

Antonio Creek (Map 15). The 1909 County Map displayed the Lompoc-Casmalia Road passing through Pine Canyon and the Burton Mesa Road leading to Lompoc Landing (Map 16). By 1919 the Southern California Automobile Club had published a map of the county. State Highway 2, (today's Highway 101), begun in 1912, dominated the map from Gaviota to Los Alamos and on to Santa Maria. Pine Canyon Road extended north from the Santa Ynez River, crossed San Antonio Creek, intersected Point Sal Road near Casmalia, and terminated in Betteravia. Santa Lucia Canyon Road branched off the Pine Canyon Road, as it does today; however, it terminated just south of San Antonio Creek. Lompoc Landing was still on that map and sketched in grid fashion to show the settlement there (Map 17).

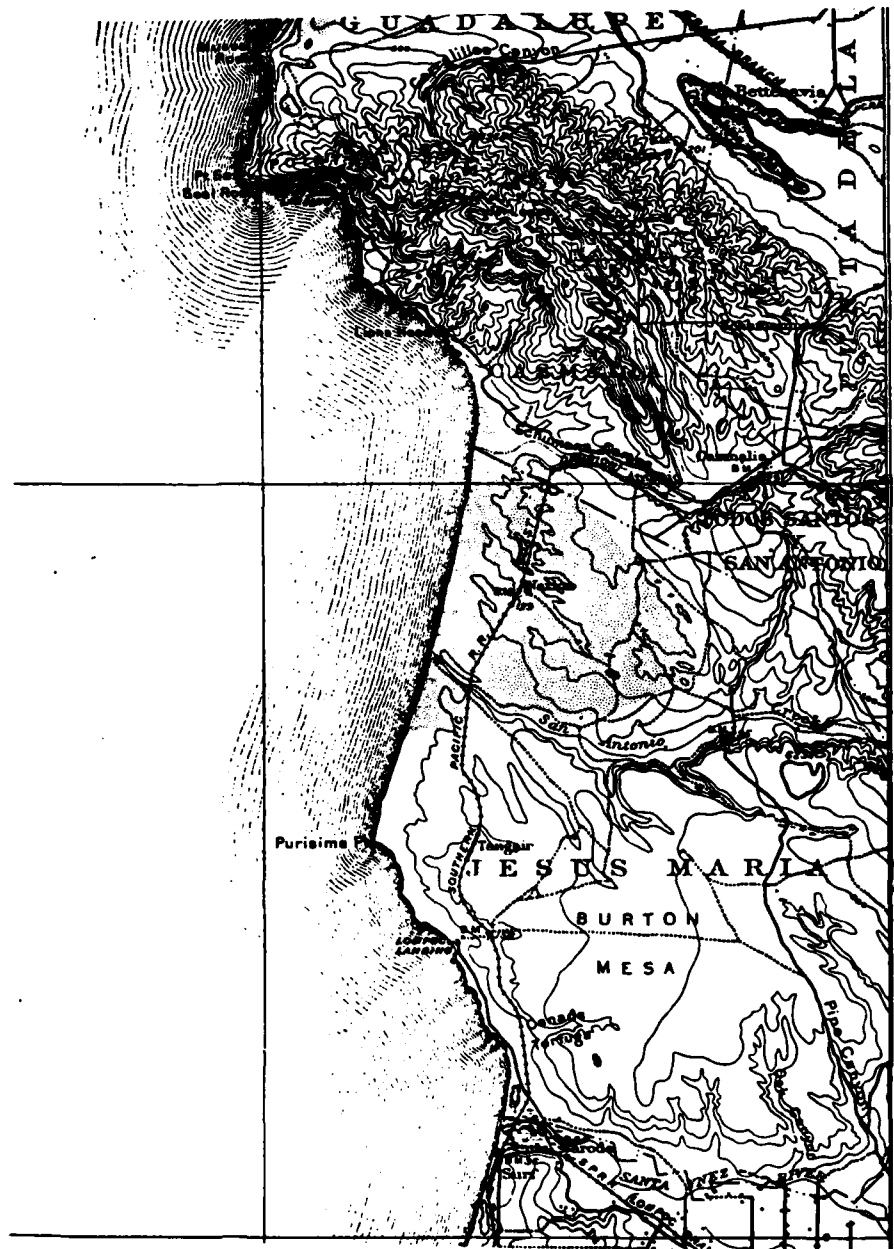
When the Jesus Maria rancher E.J. Marshall sold the Union Sugar Company some San Antonio Valley property in 1922, the deed described the rights-of-way for three road and cattle crossings not over 20 feet in width, and located them as extending across the San Antonio Valley and commencing near survey stations 13, 100, and 250 on the southern boundary survey of the Union Sugar property (Deeds 212-106) (Appendix 6).

The location of ranch roads prior to cultivation in the study zone by the Union Sugar Company is not known, except for the few drawn on the maps mentioned above. A 1923 map of part of the Jesus Maria Ranch displays many small roads connecting the outlying sections to headquarters and to the sugar dumps along the Narlon railroad spur (Map 18 in back pocket).

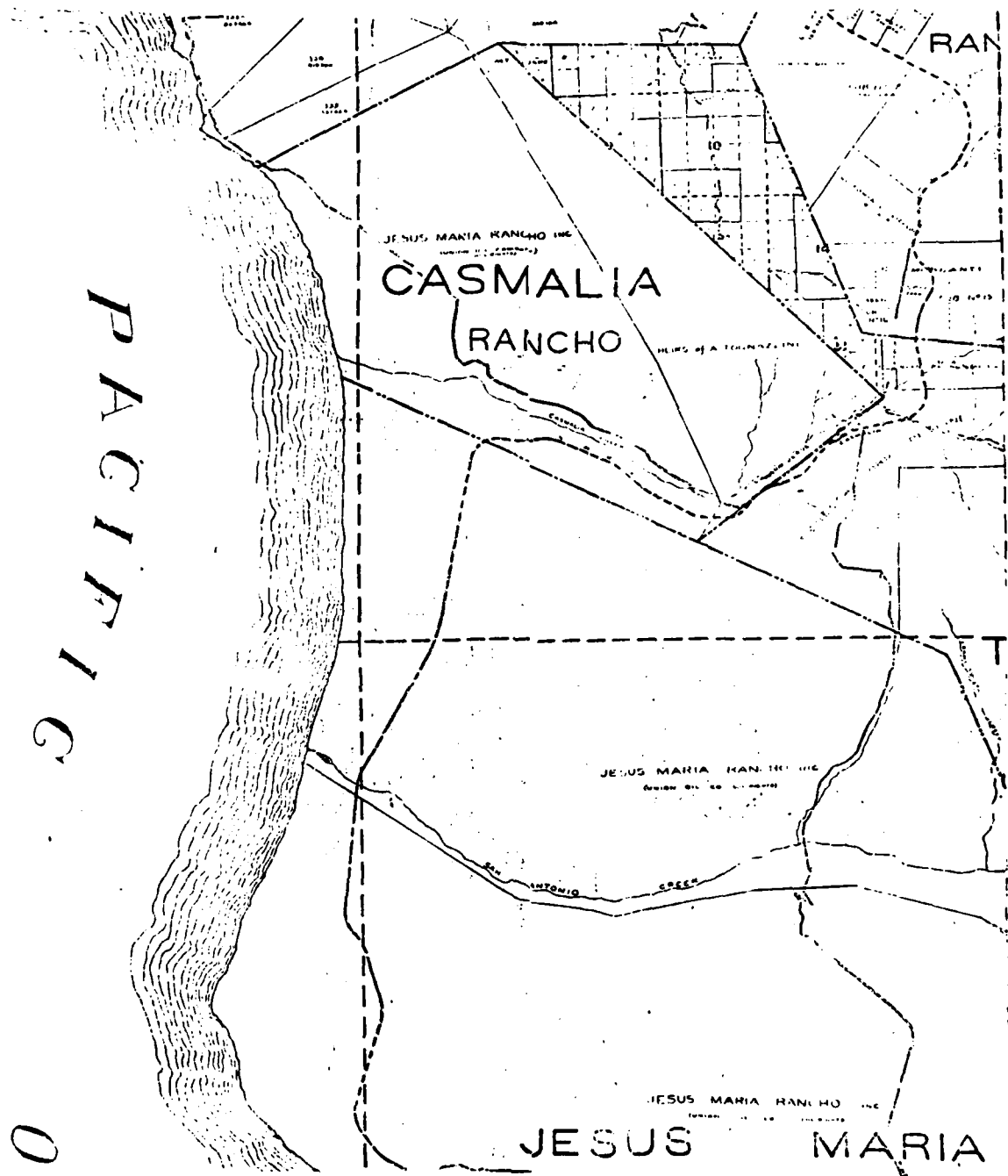
When the United States Government bought North Jesus Maria in 1941 and activated Camp Cooke, a new road system had begun to develop. Lompoc-Casmalia Road was designed in 1938 as a farm-to-market road. The USGS Casmalia Quadangle published in 1947 displays the Camp Cooke roads (Map 19). Camp Cooke was deactivated for the second time in 1953, following the Korean War. In 1955 the county supervisors issued a resolution for the blanket abandonment of several roads lying within the boundaries of Camp Cooke. The resolution, No. 15026, included the following:

...the portions of County highways known as Lompoc-Casmalia Road, San Antonio Road, Surf-Honda Road, Lompoc Landing Road, Pine Canyon Road, Santa Lucia Road, Roden Canyon Road, Miguelito Road, Honda Road, Bear Creek Road (Road No. 40), and those certain roads numbered 24, 27, 32, 34, 35, 36, 37, 38, and 39 as shown upon the map of the Ranchos Lompoc and Mission Vieja filed in Book 1, page 45, Maps and Surveys in the office of the County Recorder of Santa Barbara County, California, in the Fourth and Fifth Supervisorial Districts, County of Santa Barbara, State of California, be, and the same are hereby, vacated, discontinued, abandoned, and abolished...[Resolution 15026, Road Abstract, 4th District, Santa Barbara County Surveyor].

Finally, in 1968, Resolution No. 68-658 ordered that a portion of the Surf-Honda Road be abandoned by the county in a document of abandonment



Map 15. PORTION OF USGS GUADALUPE QUADRANGLE, 1905
(Copied and reduced from a copy in the USGS Historic File.)



Map 16. PORTION OF A MAP OF THE COUNTY OF SANTA BARBARA, 1909
(Copied and reduced from a copy at the University of California, Los Angeles.)



Map 17. PORTION OF THE COUNTY OF SANTA BARBARA, 1919
(Copied and reduced from an Automobile Club of Southern California map.)



Map 19. PORTION OF USGS CASMALIA QUADRANGLE, ca 1947
(Copied and reduced from a copy in the USGS Historic File.)

that included all county road rights-of-way lying on Vandenberg Air Force Base that were situated south of State Highway, Route 246 (County Surveyors Office).

The Railroad

The Southern Pacific Railroad, Coast Division, cleared the way for its line through the Jesús María Rancho in 1891. According to the agreements, the railroad would get 50 feet on either side of the center line extending from a southern entry into the rancho to north of the Casmalia Station. Burton, Packard, and Dutard all conveyed the acreage "for benefits derived from the railroad," and in addition extended to Southern Pacific the following privileges:

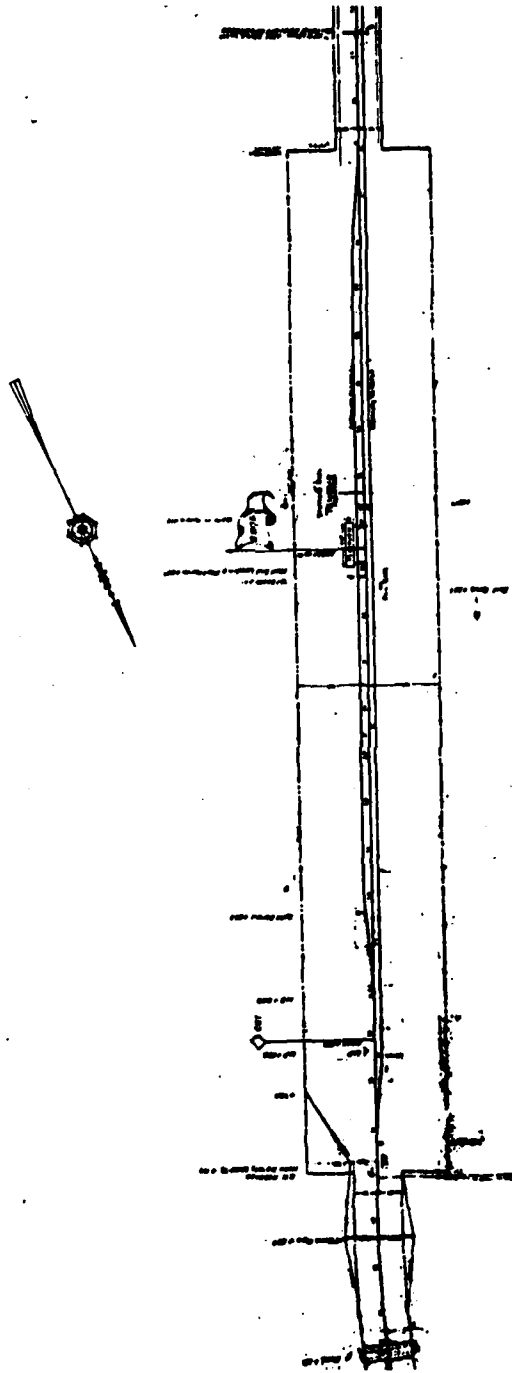
...rights to extend slopes of their cuttings or embankments, build and maintain culverts beyond the limits of the right of way where necessary and the right to quarry stone and to haul it for the construction of culverts and bridges. To enter and camp men and haul material and supplies and to fence the railroad right of way and to grade when required and as soon as practicable to construct and maintain suitable over or under or grade or gate or [construct] cattle guard crossings at such points as first party shall show to xxx

be necessary for access and use of his lands and crossings shall not exceed two in number [Deeds 30-277, June 4, 1891].

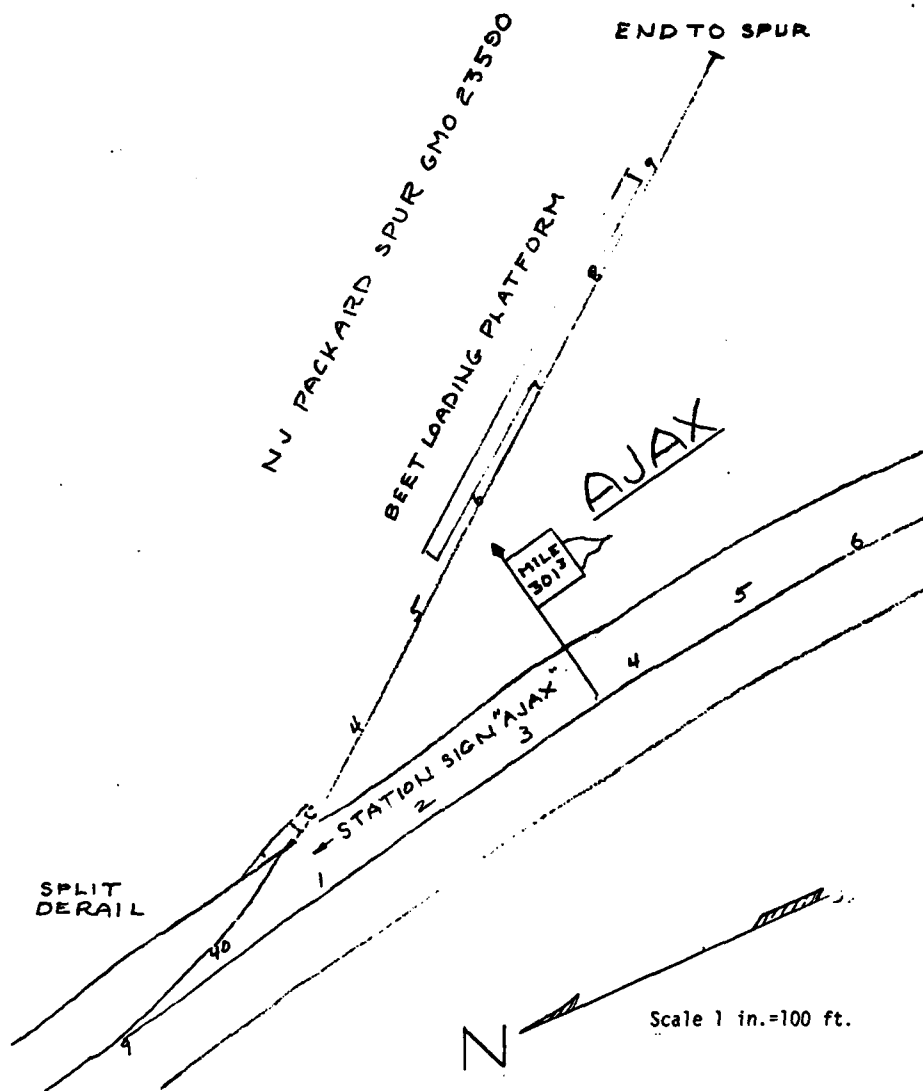
This entry thus permitted Southern Pacific to haul in exotic gravel and other building materials at will.

In 1896 Burton and Packard deeded the Southern Pacific Railroad Company two parcels of land 100 feet wide on each side of the railroad. In the case of Stella Burton, this amounted to 62.095 acres and for the Albert Packard Estate, 25.32 acres. These parcels provided for sidings for the Narlon Station on the Burton land and for the Tangair and Ajax Stations on the Packard land (Deeds 40-584, 40-587). The Ajax Station was apparently never developed (Maps 20 and 21).

In August 1895 the northern end of the coastal railroad gap was at Guadalupe. In June 1896 work was being done on the Santa Ynez River Bridge and the railroad had built girders for the viaduct over San Antonio Creek. Since at that time Southern Pacific Railroad referred to the creek as Los Alamos, this was named the Alamos Creek Viaduct. It was surely completed sometime between 1896 and 1897 since in 1897, the coastline gap was only between Surf and Ellwood (Map 1, Site 7). By 1901 the trains were traveling through the Jesús María from Santa Barbara to San Francisco (Lawler 1978:13-16).



Map 20. TANGAIR STATION PLAN
(Copied and reduced from a map held by the Surveyors Office,
County of Santa Barbara.)



Map 21. AJAX STATION PLAN, 1917
 (Copied and reduced from a map held by the Surveyors Office,
 County of Santa Barbara.)

THE MARSHALL YEARS

A Return to Latifundia on North Jesús María; Fragmentation in the South

Thanks perhaps to the discovery of oil on the adjoining ranchos, the trend to fragment the northern part of the ranch turned into a speedy reversal at the turn of the century. Stella Burton bought back the old Meherin Wharf property (10 acres) and sold it with the remainder of her Lot 2 to H.T. Rudisell. Rudisell then held all of Lot 2 and the Wise and Denigan strip (Lots 3 and 4) of the Ben Burton Tract mentioned above. Rudisell was a Los Angeles financier who had much to do with movie industry finance and, like Frank Garbutt, helped found the elite Los Angeles Athletic Club. Eliza Dutard, who had survived her husband Hyppolite, sold their property, Lot 1 in the north, to Frank Garbutt of Los Angeles on December 18, 1905. Garbutt, an executive for Union Oil, reconveyed the land to the Oil Company the same day. Then, before the month was out, Rudisell sold Union Oil his Lots 2, 3, and 4. As the year ended, Union Oil owned practically all of Jesús María except the old Packard Estate in the south. The oil company also bought up a large portion of Casmalia Rancho in Garbutt's name in 1905 (SBTIT; Interview, Young).

The opposite trend, one toward fragmentation, appeared on south Jesus Maria. Albert Packard died in 1906, leaving his property to his three children: William, Francis, and Rose. The Packard Ranch broke up into Lots 5, 6, 7, and 8 of Jesús María (Map 7). William J. Packard sold Lot 7 (1,500 acres) and a 50-foot right-of-way to the Anglo-California Oil Syndicate. This rectangular piece of property lay east of center in the ranch and shared its northern boundary with a part of Lot 1 of the Jesús María. The daughter, Rose, who was married to William Shyvers, lived in London. She received Lot 8 (1,921.25 acres). When Francis Packard died in 1909, Rose Shyvers bought Lot 6 from the estate for \$3,600, the highest bid. It lay in the extreme southeast. In 1915 the Shyvers mortgaged their ranch to the Farmers and Merchants Savings Bank in Lompoc for \$9,000. The indenture drawn up for the mortgage supplies an official survey for the Shyver Ranch and its common boundaries with the rest of the "Jesús María Rancho" and with the Anglo-California Oil Syndicate property. The document reveals that at this time there were fences between the Jesús María Corporation property at the north and the Shyver Ranch (Deeds 77-255) (Appendix 3). In 1918 Rose Shyver sold Lot 6 to the Union Sugar Company, withholding the rights to underground deposits. Union Sugar included the provision that the Shyvers bury any of their pipelines 18 inches deep so as not to interfere with agricultural and domestic use (Deeds 157-484).

Rose Shyver appears on public records through the 1930s, an absentee owner, contracting oil and gas leases with such diverse companies as Anglo-California Oil Syndicate, Standard Oil, and--most often--with drillers represented by one W.H. Taylor. As for the surface rights, the Shyvers habitually leased out portions of their land to local ranchers and farmers so

that the farm lands were cultivated. They also leased land to the Union Sugar Company over a long period of time (SBTIT; Interview, W. Spanne).

In December, 1906, upon the request of Edwin Jessop Marshall, a deed was recorded in which Union Oil conveyed its surface rights on the Rancho Jesús María Rancho and on two adjacent ranches to one "H.S. Stephenson" (Deeds 119-51). Stephenson, a sometime partner and employee of Marshall, who was the president of the Jesús María Rancho Corporation, lent his name only to the land transfer. He deeded all of the property to the Jesús María Corporation on the same day (Deeds 119-59). In the matter of surface rights, this returned the rancho again to the status of a great estate. The land transfer included the following: all of northern Jesús María Rancho plus the old Ben Burton Tract in the southeast; all of Rancho Casmalia except the Chute Landing tract; and 2,114.70 acres of the Rancho Guadalupe and Todos Santos. (Todos Santos was probably mentioned in error, as SBTIT plant data never shows Marshall or his corporation holding Todos Santos land.) Union Oil retained "exclusive and perpetual right to all coal, lignite, coal oil, petroleum, naphtha, asphaltum brea, bitumen, natural gas, and all other hydrocarbons." Union Oil also retained rights to enter, erect derricks, to store materials, rights of ingress and egress, rights to telegraph lines, rights to locate machinery, water rights, and rights to lay pipe. All of these privileges are spelled out in the indenture which is included in Appendix 4. In 1917 the Jesús María Rancho Corporation bought the land the California Steamship Company still held along the coast, and thus brought its holdings on the Jesús María up to 34,166.7 acres (Deeds 161-205). The combined acreage of all the corporation ranchos involved brought Marshall's spread up to about 52,000 acres.

Edwin Jessop Marshall, like Lewis T. Burton, was an important man in the history of the Jesús María. His career paralleled those entrepreneurs who struck it rich in railroads, land, and oil in the period between the Civil War and the turn of the century. Men like Collis Huntington and George Hearst accumulated more than Marshall did, but Marshall's methods were much the same as theirs. Marshall was born March 18, 1860 in Dulaney's Valley, Baltimore County, Maryland. Since his parents were of Quaker stock, and perhaps because war was unpopular at the time, the family refused to let him accept an appointment to West Point. He left home early and took a job as a newsboy on a train. He worked for various railroad companies in clerical and administrative positions, but left railroading to go into ranching, banking, and oil. At the age of 40, he and four associates formed the Hogg-Swayne Syndicate which bought the Spindle Top Dome property, one of the most spectacular oil discoveries in history (Los Angeles Times, August 16, 1953; Interview, Tyler).

Wealthy Americans were able to acquire millions of acres of land in Mexico at the turn of the century. Mexico's pro-American dictator Porfirio Díaz had encouraged the passage of a series of laws in the 1890s that provided for the survey of government land. Those who could pay for the survey, Mexican or foreigner, could select out a third of the land surveyed

and claim legal ownership. By 1910, alienated land constituted nearly one-fifth of the total land area of Mexico (Cumberland 1968:198). One individual received 12 million acres; Marshall reputedly had two million, and he likely acquired his Palomas Rancho through the survey law. Palomas Rancho was outside Juarez, in the State of Chihuahua, and was, according to the Los Angeles Times article, the largest single fenced area in North America. The fence started 15 miles west of El Paso, Texas and extended along the international boundary for 160 miles. Marshall ran 50,000 head of Hereford cattle on Palomas Ranch and brought them across the border to fatten them on his United States ranches. After he purchased the Jesús María he shipped some 4,000 yearlings each spring by railroad to his California ranch to graze and fatten for the Los Angeles market.

By 1906 when he bought the Jesús María, Marshall was primarily a ranch and cattle man. In addition to the Palomas and Jesús María he also owned the Grand Canyon Ranch, 750,000 acres, which included the land north of the canyon that is now part of the National Park. He also owned Rancho Santa Ana del Chino, 46,000 acres, at the site of present day Chino. Marshall was president of the Sinaloa Land Company which owned 1,500,000 acres of land in Mexico.

Marshall organized several corporations to administer his land in the Casmalia-Jesús María area. For example, he changed the name of the Jesús María Rancho Corporation to the Casmalia Land and Improvement Company in 1918. Soon after this, he set up the Casmalia Ranch and Cattle Company with his son, Marcus M. Marshall, as president. In 1926 he reorganized his many California properties, including an impressive list of Los Angeles city lots under the Marshall Properties Holding Company (SBTIT; Deed 97-150).

Marshall was the first real rancher to own the Jesús María. He maintained his own permanent herd, visited the ranch on week ends from his home in Los Angeles, and gradually built up the ranch headquarters north of San Antonio Creek. He had the interest and the development capital to bring about change. Marshall inaugurated his own system of ranch management, of grain leases, farming, and cattle grazing soon after his purchase. In less than 2 years he was negotiating with the Union Sugar Company for a lease to grow sugar beets.

Although we have few of the Marshall papers to work from, we do have records for the Union Sugar Company to whom Marshall leased land. They provide much of the reliable data we have about land use of the study zone during his early period of ownership. A recent interview with Edwin J. Marshall II, Marshall's grandson, has also helped to fill many of the gaps in our knowledge of the Marshall period.

The Union Sugar Lease

The Union Sugar Company was incorporated in San Francisco in September 1897. One of the founders, E.C. Burr, became the Director in San Francisco, while another, L.C. Marshutz, who owned an iron works in

San Francisco, provided for all of the plant machinery in the city. They hired J.W. Atkinson, an able agriculturalist and experienced administrator, to be plant superintendant and to develop the mill. Locating the plant on ranch property at Lake Guadalupe, Union Sugar made Betteravia (French for beet root) their mailing address, and looked forward to the day when oil would be discovered below their deep rich soil to provide fuel for the mill. By April 1898 they had \$500,000 out in contracts to construct beet sheds, a brick factory building, and a narrow guage railroad that would meet the Pacific Coast Railroad near the town of Guadalupe. Supplies came in at Port Hartford, but Atkinson looked into the possibility of running a company railroad to a closer focal point where they could load ocean-going vessels.

In August 1901 (when the Careaga oil wells belonging to the Western Union Oil Company began to produce) Union Sugar switched from coal to oil for its power, using up to 250 barrels of oil a day. However, by depending upon these wells and on the equipment of their narrow guage railroad, Union Sugar had serious oil shortages and sometimes had to stop the factory for days at a time. Wells finally came in nearby and on the Betteravia Ranch itself, providing for a smooth milling operation. All that was needed was a good supply of sugar beets.

Union Sugar seeded the high land on Betteravia Ranch in February 1898, but in May it had a total of only 25 acres of beets thinned and hoed, and this had cost the company \$550. Atkinson wrote to the San Francisco office, "I don't think it wise to work out any more beets at the company's expense, but it was necessary from a business standpoint to risk working some, or else the people would loose confidence in us" (Atkinson to Burr, May 5, 1898). Atkinson then approached the local farmers, making contracts at a flat rate of \$4.25 a ton delivered to the factory, or signed them on for a lease. The lease, written on an annual basis, usually provided that one-quarter of the crop would go to the farmer. On large acreages, Union Sugar cultivated and harvested the crop. Company farm books in 1900 documented a Tognazzini lease on Casmalia Ranch, a Dutard lease on the Jesus Maria, and a Harris lease near Harris Station just east of the study zone. The Harris land had produced 19 car loads of beets, and we may safely speculate that the venture had tapped underground water or even surface water destined for the lower San Antonio Creek. The next year Union Sugar leased over 2,000 acres which included 1,000 acres on Oso Flaco Ranch, acreage on the Bonette Farm, the Zanette property, the Huyck farm, the McKay Ranch, and Surf Ranch.

During the first year's operation the plant produced 25,240 bags of sugar. Then, as the company pressed more and more land into use in the nearby Lompoc and Santa Maria Valleys, sugar production rose and in 1909 reached ten times that figure. The unprecedented planting in the valleys introduced deeper plowing, irrigation, fertilizing, and portable railroads to the fields.

In 1909 Union Sugar was also buying land and improving it with ditching and draining, paying up to \$150 an acre for it. A typical proposal was the Brown Ranch in Guadalupe, where the company lease ran \$2,200 a year for

the rental of 235 acres of beet land, 64 acres of steep glen acreage that could be converted into beet land with ditching, and 70 acres of hay land bordering the lake. Atkinson offered to buy it for about \$45,000 on a scale of \$150 for the beet land, \$100 for the Canada Verde, and \$50 an acre for the hay land. The plant had just finished processing in excess of 90,000 tons of beets, and the local farmers were, to quote Atkinson, "making a barrel of money." Crops in the Arroyo Grande Valley were running from 30 to 40 tons an acre, and the beets were so rich that they tested as high as 20 percent sugar. That year the plant predicted 14,000 tons of sugar, and the whole business was in splendid shape.

Edwin J. Marshall was generally referred to as the owner of the Jesus Maria Ranch after 1906, the year he bought the portion of Jesus Maria north of the Packard Ranch. In August, 1908, he seemed anxious to go into beet culture and initiated an offer to lease Union Sugar the 1,000 or more acres of bottom land along San Antonio Creek. Superintendent Atkinson thought it a very fine proposition. Part of it would require ditching and a little clearing, but that would not be at all expensive, and he arranged for a meeting for Mr. Marshall on the ranch with directors Sutro and Lilienthal (a lawyer) from San Francisco. The party traveled by automobile from Harris Station, down the San Antonio Valley to "Marshall's place" (Map 1, Site 5) and by way of Casmalia back to the factory at Betteravia.

After a 30-year gap in the literature and in the maps, we again find mention on paper of a ranch house in the San Antonio Valley. On September 3, 1908, Union Sugar informed Marshall that they had decided not to farm the "Jesus Maria Valley" on account of the long haul, greater expense of equipment than anticipated, and the expense of drilling. Atkinson wrote, "Possibly at some later date we may succeed in inducing the railroad to bear part of the expense of construction and necessary tracks" (Atkinson to Marshall, September 3, 1908). Marshall continued to show an interest in beet culture, however, and asked Union Sugar to send over their irrigation engineer, Mr. Haviland, when he was in the area to make a judgment. Marshall also said he was willing to share in the risk of the first plantings. He then started some ditching in the San Antonio Valley.

Atkinson brought out the company surveyor, and in the following June, wrote to Marshall:

I made a trip yesterday in company with Mr. Harris and our surveyor over the valley lands of the Jesus Maria from the extreme western end to the extreme eastern end, zigzagging back and forth across the fields, making test holes and taking samples for analysis.

Since my last visit I notice a great change in the condition of the valley, partly due to the ditching that you have already started, and to the heavy rains of the past winter. The deposit of sediment in the lower fields is from 6 to 10 inches thick, and as it was in a

very fine condition when deposited, it has since dried and shrunk into irregular blocks from one to two inches between them, like the bottom of an old lake bed. The sediment now is so hard that it can be carved with a knife like a piece of shale, which it resembles very much. It is going to be difficult to work this into, and mingle it with, the underlying soil, and I think considerable damage has been done in consequence. Further up the valley the sediment has not been so fine and it can be easily worked up with the soil. I notice from the markings on the banks that the lower fields must have been covered with water to a depth of six to eight feet, and as no doubt this stood for some time it accounts for the excessive deposit of fine sediment, hardening and cracking as the water evaporated. I noticed in one place that the ditch you have recently built has overflowed on the surrounding lands, seeming to indicate that it was in the wrong location, and that the ditch was higher than the land.

I am sending you a party of surveyors over today to run a series of levels and contour lines over the valley lands, and also to lay out a feasible route for the railroad to go down, in case one exists with not too great a grade. From my inspection of conditions I am inclined to think that the grade is going to be too great and make it a very expensive undertaking.

The road over to the ranch is in very bad shape for teaming, and I will have to make some little changes in my well rig [to explore for water wells] before I can get it ready for the trip, which will take a week or more.

Union Sugar anticipated a systematic plan of irrigation for the San Antonio Valley, the first in the ranch's history, and began prospecting for water sources. On July 9, 1909 a test well had reached a depth of 120 feet with no favorable showings for water. The strata was as follows:

Top soil	10 feet
Sand and gravel	10 to 30 feet
Fine sand	30 to 83 feet
Blue clay	83 to 120 feet

All of the first test wells were disappointing, but Atkinson went ahead with other irrigation projects until the problem was solved. The company correspondence does not locate the test wells nor spell this out. In August an agreement was taking form whereby Union Sugar would make an experiment with sugar beet plantings in the valley. They would plant 100 acres in five 10-acre plots and haul the beets entirely by animals to the railroad. During 1910, the year of the experiment, no charge would be made by Marshall, but

if the experiment proved satisfactory he would lease the San Antonio Valley at \$8.00 per acre for 10 years beginning November 1, 1911. According to Marshall's 1910 map, the valley land was composed of 11 lots containing a total of 939.48 acres. The experiment was eventually carried out on three plots. Marshall required that the company fence the north side of the portion considered for the lease, a distance which he estimated to be about 5 miles, and that would cost between \$1,500 and \$2,000. Because of this and the other expenses, Union Sugar had the option to negotiate a new lease at the end of the 10 year period written into the contract.

The lease itself has not been seen, but two excerpts from the lease included in company correspondence follow. The first came after a section which gave the Union Sugar company rights-of-way for haul and for irrigation ditches, flumes, and pipelines and reads:

And it is further agreed that the Company shall have the right to dig and bore wells and pits for the purpose of developing water for irrigation, or making other improvements on the demised property or premises; also the right to bring water from other sources, if so desired, upon said premises, and to make all necessary reservoirs and ditches to convey said water over said premises, the Company hereby agreeing that any wells put on said premises by it shall remain on said premises for the use and benefit of the owner at the expiration of the term herein mentioned.

The second paragraph related to Marshall's right to feed cattle on the beet tops after the harvest had been completed. It reads:

The beet tops on the above-described premises are to be fed so as not to interfere with the Company's agricultural operations, and the cattle are to be removed when notified by the agricultural superintendent (who shall be the sole judge in this matter) that the land is wanted for agricultural purposes.

In the event of rain, or threatened heavy rain, the cattle are to be immediately removed on orders from the agricultural superintendent of the Company and returned only on his consent.

In the event of the owner desiring to begin feeding part of the field before the whole field is harvested he shall either put up temporary fences to keep the cattle from the unharvested portion of the crop or properly herd the cattle.

During the feeding of the beet tops the cattle are to be kept out of the irrigation ditches by suitable fences.

The problems were worked out to suit everyone and on November 22, 1909, the Marshall lease was signed. Union Sugar was still prospecting for water wells.

In September 1909 Union Sugar had already set up a camp for their workers on the Jesús María and had begun the experimental planting. In August 1910, as the growing season came to an end, Union Sugar asked for and got a 30-day extension on their agreement for the experiments. This allowed the beets to mature to a point that the sugar content and purity could be tested at their optimum. Atkinson wrote that he was undecided "on account of the large amount of potash that the soil contained as well as other salts that go to make a rather low purity and low sugar content" (Atkinson to Marshall, July 25, 1910). Unfortunately, no map accompanies the Union Sugar correspondence, and the location of the plots and of the workers' camp is unknown.

By September the three experimental plots showed luxuriant growth, but the beets in the lower ten acres near the ocean demonstrated a tendency to sprout side rootlets. It looked as if all three plots would run from 15 to 20 tons per acre upon harvest. Samples of the beets from all the plots were tested at the laboratory with the following results:

<u>Field</u>	<u>Average Wt.</u>	<u>Brix*</u>	<u>Pol.</u>	<u>Purity</u>	<u>Sugar</u>
Lot #1 (Foot of Barca grade)	1.6 lbs	23.0	20.7	90.0	19.4
Lot #2 (Middle plot)	1.7 lbs	19.7	16.9	85.8	16.4
Lot #3 (Nearest ocean)	2.32 lbs	18.0	15.6	86.7	14.6
Lot #3 (Large beets)	2.87 lbs	16.6	13.6	81.9	12.2

*Percentage of sugar as determined by a Brix scale.

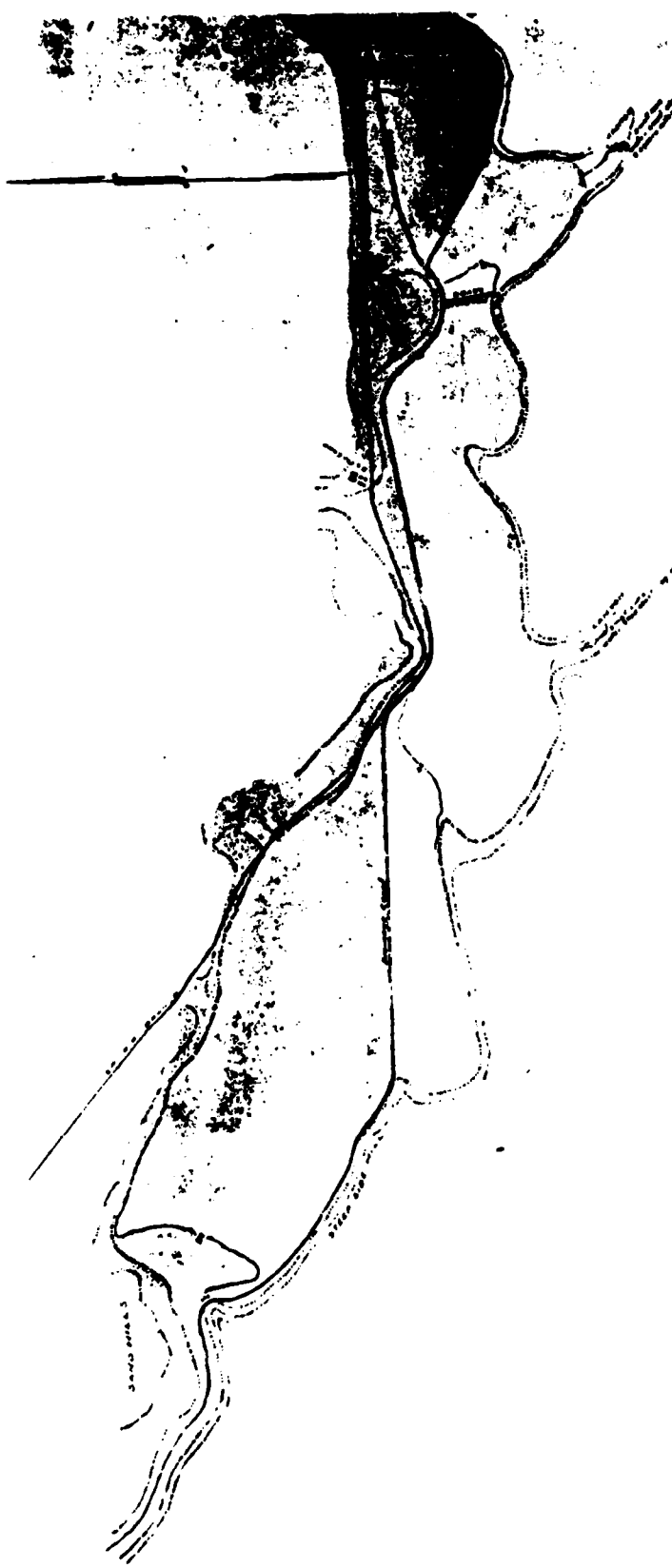
The company believed that this was a remarkable showing in sugar and purity for beets only 4 months old, and the 10-year lease was redrafted for a maximum figure of \$8,000 a year for the approximately 1,000 acres. Talks then began in regard to drainage of the "monte land." (Monte is the Spanish word for mountainous or hilly land that is usually covered with brush, but in this case referred to the thickly wooded area along the creek.) The company probably had 1,024.89 acres at that time (Map 18).

In August 1909, prior to signing the lease, the firm of Haviland and Tibbetts (who made a specialty of drainage and reclamation) came from San Francisco to make a survey for the reclamation project scheduled for the Jesús María in 1910 (perhaps Map 22a, 22b). From the correspondence, we learn that Union Sugar still had no permanent camp with a cook house on the ranch, as they had to prevail upon Marshall to put up the party of surveyors



Place names from left to right:
 Steep side hill
 Proposed levee
 County Road Lompoc to Casmalia
 Proposed levee
 Creek
 Proposed levee
 Creek
 East line of Jesus Maria Rancho

Map 22a. PORTION OF A TOPOGRAPHICAL MAP OF THE
 LOWER END OF SAN ANTONIO VALLEY, ca 1911
 (Copied and reduced from a copy held by the Surveyors Office,
 County of Santa Barbara.)



Place names from left to right:

- Sand Hills
- Steep side hill
- SPRR Branch
- Drainage canal
- Canyon
- Small lake-water shed about 1 square mile
- Union Sugar Company Camp (6 buildings)
- Proposed levee
- Canyon
- Small lake-watershed about 2 square miles
- Creek
- Jap Camp

Map 22b. PORTION OF A TOPOGRAPHICAL MAP OF THE
LOWER END OF SAN ANTONIO VALLEY, ca 1911
(Copied and reduced from a copy held by the Surveyors Office,
County of Santa Barbara.)

at his ranch house for their 3 week stay. The Haviland and Tibbetts report is not available to us, but working from it Atkinson wrote the following:

It was not our understanding that the drainage ditch, or canal, be constructed the entire length of the demised premises, as the drainage canal is only intended to cover part of the land, the canal connecting the center of the monte with the now existing creek; and the creek from this point on to the eastern boundary is supposed to carry the flood waters after being cleaned from willows and rubbish, and kept in such a condition [Atkinson to Marshall, August 1, 1910].

Mr. McCoy wrote of two bridges they built. One was located just west of Union Sugar Headquarters, and the other was evidently across the canal where levees had to be maintained. McCoy complained that it would be quite a job to install the latter and very likely would require some piles.

At least eight ranch cottages were constructed as there is a memorandum about the lumber for these dated April 18, 1911. The contract required that all buildings and the fences around the permanent camp be whitewashed and that gates or cattle guards be placed at specific points. Marshall specified expensive ones in both cases. Squirrels abounded, and the company commenced its regular program of rodent eradication using strychnine. It was a difficult task since the sugar acreage was surrounded by hilly shrub-covered monte land. Atkinson once wrote a paragraph on manure which had to do with questions of hauling and spreading responsibilities and the use of Union Sugar manure on Marshall's land (Letter, Atkinson to Marshall, September 6, 1910).

Marshall had a telephone line into the Jesus Maria Ranch House in 1911. That same year Union Sugar asked permission to use the right-of-way over his poles from the Casmalia Station; Home Telephone Company provided the service. The "respective headquarters" were mentioned in a Union Sugar request to Marshall asking that he cooperate with Union Sugar in 1912 to obtain Rural Delivery. Assistant Manager McCoy argued that there was quite a population in the lower Los Alamos Valley, all remote from postal facilities.

Sugar plantings on the Marshall land went ahead gradually while the drainage and reclamation projects progressed. Union Sugar expected their lease to be practically all productive beet land, but the weather held back early development. In 1911, due to "terrible" rains, the company farm superintendents complained they had to do nearly all the work over and that the acreage planted on the Jesus Maria was much smaller than anticipated. In the summer of 1912 the crew there had 750 acres planted in "garden like" condition. The same acreage was reported for 1915, and whether it ever increased is not known. Lower figures have been seen but never higher than 750 acres. No map or correspondence has been seen that locates the acreage planted in sugar beets.

The Marshall lease fell into the general picture of expansion of the Betteravia sugar operation. The company milled 84,404 tons of beets in 1911. The Union Sugar Company statement for 1913 stated that they owned a total of 14,624.97 and leased 10,608.78 acres of land. Just under half the acreage was planted in beets, the remainder being classified as non-beet (Appendix 5). The company rented to tenants on some of the land they owned, charging a third of the crop plus \$1.00 a year. Oriental and Hispanic surnames predominated, and an Olivera or two was always among them.

Beet Cultivation and Harvest

In preparing the ground for planting, ranchers reported plowing the land 12 inches deep and less; the land reported as "harrowed" probably was to a lesser depth. Teams of horses pulled the plows at the turn of the century. The company paid \$1.15 for the driver and 25 cents a day for each horse. By 1908 Union Sugar was using a steam plow on their farms, especially for harvesting the beets. The two steam engines were equipped with a cable strung out across the entire field between them, and the power pulled the big plows across the fields. One set of equipment included two engines, the steam plow tackle, agricultural tools, and a bunk house and cook house. All this was moved from field to field by the company. At harvest time the beets were plowed out of the ground, then groups of field laborers (usually Japanese) would work up and down the fields topping them. They used knives with a slight hook at one end to pick up the beet and then slashed the tops off with the sharp blades. Teams and wagons then went up and down the rows while the laborers threw the beets on the wagons. Each wagon had big nets made of heavy rope lying on the bottom and sides. When the wagons were ready to dump their loads into the freight cars, a hoist could pick up the nets and dump the entire load (Lompoc Legacy 1977).

After the harvest, cattle grazed the field and consumed the beet tops. The sugar beet pulp, a by-product at the factory, was used as part of a feed mix for cattle during dry years with some success. According to Union Sugar, the beet tops provide an unsurpassed growth-promoting feed for cattle. Ranchers, however, complained they had to patrol constantly the cattle since they tended to bloat, perhaps because the beet tops were too green. Union Sugar claimed tops of an acre of beets have a feeding value equivalent to a ton of the best alfalfa hay (Union Sugar 1948; Interview, Marshall II, August 20, 1982). Another attribute of the sugar beet is its long root system which is over five times the length of the beet itself. The root decomposes and contributes to the fertility of the soil. It is not known if Union Sugar introduced other fertilizer to the Jesús María or simply let the fields lie fallow part of the time.

Common to all of California agribusiness, Union Sugar sought out ethnic labor from the onset of its operations. Atkinson wrote in 1898 that he was looking for Chinese labor and not finding it; Chinese exclusion laws had effectively dried up that source. Like other agriculturists, the company

turned to the Japanese. The "Jap Gang" had its own Japanese contractor, and in 1900 a gang earned \$1.25 per ton for harvesting, cleaning, and loading the beets. Atkinson discussed the Japanese contractor often in his correspondence with the directors. In 1912 he reported that they paid the Japanese \$2.25 a day for beet field work. He also wrote that the company had distributed a stock of unwanted liquors carried in stock at their warehouses to the Japanese contractors so that they could take them to the various Japanese camps. Apparently the first "Jap Camp" on the Jesus Maria was located east of an early Union Sugar Company Camp in the western lower San Antonio Valley (Map 1, Site 14, Map 22).

The Narlon Spur, Southern Pacific Railroad

Ever since 1908, when Union Sugar first showed an interest in the San Antonio Valley, there had been the problem of the expensive long haul for the beet wagons out of the valley. Atkinson engaged a railroad engineer in 1908 and in 1909 to evaluate the possibility of laying narrow gauge tracks into the valley. Following this, Union Sugar sent out a party of surveyors in late 1910 to run a series of levels and contour lines over the valley lands and also to lay out a possible route for a railroad. Observers believed the grade would be too great and the undertaking too expensive. Thus, when Union Sugar planted their test plots on Marshall's land, they decided to make the experiment entirely with animals and haul the beets with team-drawn wagons to the railroad at an existing shipping point on the railroad called Narlon. The company had plowed a hundred acres for the test rather than the 200 acres they had expected to farm in order that there would be less tonnage to haul northwest to Narlon.

The company depended upon its own narrow gauge at Betteravia. Sugar growers throughout the world were accustomed to using both portable and stationary railroads to serve their fields and industrial plants. In 1910, after Marshall's experimental plots had done so well, Mr. Atkinson went over the San Antonio Valley again with Mr. Clark of the Pacific Coast Division, Southern Pacific Railroad. Traveling by automobile, Atkinson told Clark about a reclamation scheme Union Sugar had in mind embodying a central drainage canal from the Harris Gaging Station on San Antonio Creek to the coast. The canal would keep the lowland from flooding during the winter season and make it feasible to build a railroad on the flat land. Atkinson's plan at the time was to run a railroad spur from Harris Station to the Marshall east line (about 5 miles) on to the County Road that goes up Barker Grade (about 2 miles) and west to the coast where it would contact with the main line somewhere between Narlon and the viaduct over the San Antonio Creek. (Southern Pacific as will be recalled, referred to this as the Los Alamos Creek.) This would make a total of about ten miles of track and include six sidings for loading which would be distributed along the entire length of the valley (see maps 16 and 18). Mr. Clark estimated that since it would all be on flat, drained land, it would cost only about \$7,500 a mile. Atkinson promoted the idea by writing the Union Sugar directors in San

Francisco that Southern Pacific would probably be willing to build it under a proper guarantee of tonnage at their own expense with, as he put it, some accommodation from the Union Sugar Company. Union Sugar's investment could then be rebated in freights. Mr. Atkinson told Mr. Clark in turn there would be a total of about 2650 acres in all, broken down as follows:

Barca	500 acres
Zabala	800 acres
Newhall	350 acres
Marshall	1,000 acres

Mr. Newhall had already agreed to the rental and drainage of his part of the swamp by Union Sugar, including all of his valley land. Newhall's ranch lay adjacent to the Jesús María. On the other side of Newhall's tract, to the east, lay the Zabala land (Map 16). Atkinson met with Mr. Zabala the following week, but Zabala refused to go along with the reclamation project. This forced the others to give up the idea of taking the railroad through to the Barca Ranch and to Harris Station. Atkinson wrote, "We must abandon the reclamation of the Zabala swamp for the present unless condemnation proceedings are commenced and these people whipped into line" (Atkinson to Lilienthal, November 7, 1910).

Meanwhile, Atkinson gathered complete data for an industrial railway of 24 inch or 30 gauge. The problem was how to find a way out of the valley with this small gauge and to touch the main line of the Southern Pacific Railroad (SPRR). A point near the mouth of the creek at the coast would be the shortest, but this was found to be impractical since it would be necessary to elevate the beets from the valley to the main line near the aqueduct. There was not sufficient ground there for a siding without extensive fill. Atkinson was determined to go ahead, and argued that the small industrial line would do away with all team hauling and save the company a lot of money. The valley was long and narrow and lent itself to the proposition very well.

After studying the surveys of the Arthur Koppel Company hired by Union Sugar and those of the G. W. Wade, Assistant Engineer for SPRR, both parties finally agreed upon the Wade survey for a spur out of the SPRR shipping station at Narlon along the north side of San Antonio Creek. Union Sugar granted SPRR a 60 foot right of way over their leased land on the Jesús María "without cost or rental charges" on August 3, 1911, and extended the right of way a year later. In all it contained 13.21 acres. Survey notes describing its course may be found in Appendix 7 (Deeds T-628; T-836; 212-114). Union Sugar chose a location for their first siding from Narlon beyond the first fill and just after the road struck the floor of the valley and where the tracks ran "out slightly" into the sand hills. This appears on Map 15 as "Marshall 1." The second loading platform was on the spur at mileage post 295.5 and designated on Map 18 as "Marshall 2." On the County Survey Map 1143 B (Map 22) Marshall 2 is the only Marshall siding shown. The spur

ended at this time at mileage 295.742 and was in operation in December 1911. During 1912 SPRR extended the spur to mileage 297.448 and located a third loading facility at Gray, which lay at mileage 297.2. This was because Union Sugar needed a place to spot cars in front of their own ranch headquarters on the Marshall Ranch. The name was picked at random. McCoy suggested that Southern Pacific call it Johnston or Graham or any name they wished since they would need a place name for billing purposes. The name request was made in October of 1912 (Map 23). The beet loading platforms were 12 feet high. Runways were built to the platforms so that the trucks could off-load the beets.

Since Narlon was at mileage 293.2, this made the total mileage on the spur very close to 4.2 miles. The track was made of second-hand steel rails, various brands, 76#, no ballast. The graders who worked on the spur had a big camp with many mules and scrapers at Narlon, while the track layers probably lived in outfit cars set out on the Narlon siding (Farrar to Roberts, 3/2/1982; Interview, W. Spanne). According to the railroad engineering records, the Narlon spur was retired from revenue service in 1939 but observers such as E. J. Marshall II could not recall seeing a train on the spur any later than 1926. The spur was apparently retired "in place," i.e., the tracks were removed at a later date. One interviewee recalled that the rails were collected for the metal during World War II as part of the war effort to salvage metal; this was during the time Camp Cooke was active on the Jesús María. Camp Cooke maps do not show the spur, and a man who designed Camp Cooke claims there were no rails there when the "Santa Maria Project," as it was called, began in 1941 (Ford 1980:7; Interview, Ullman).

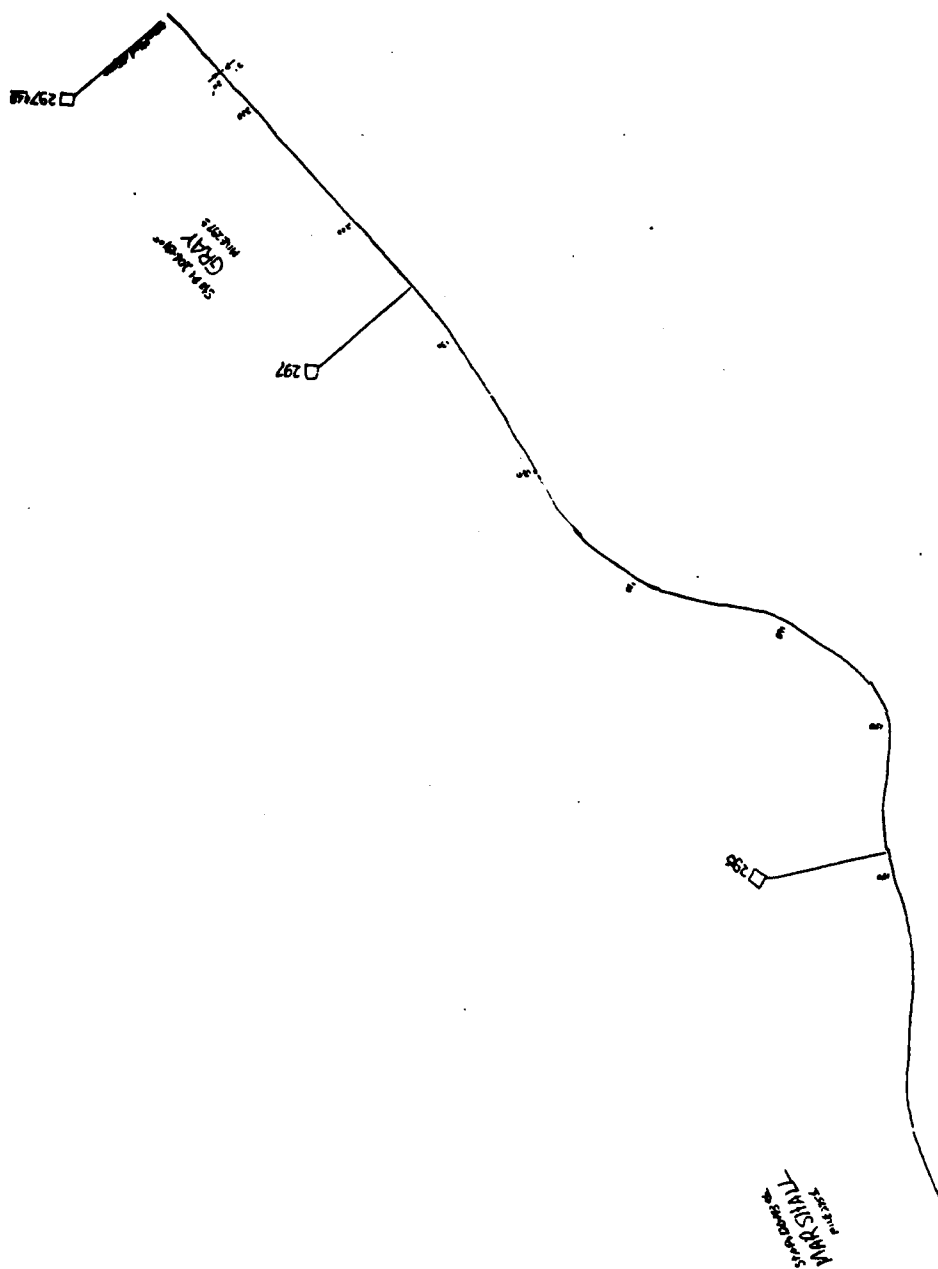
SPRR Stations on the Rancho Jesús María

A station plan for Ajax was drawn up by the SPRR Coast Division in March, 1917. Ajax was to be at mileage 301.3, south of Narlon; the Packard spur coming off there was to be only a half mile long, just long enough to provide room for a beet loading platform (Map 21). There is no record of the plan being executed. The Tangair station plan was executed in October, 1921 at mileage 297.12 just south of the outlet for the Cañada Tangair and directly east of Purisima Point.

Marshall's Ranch, 1906 - 1922

Documentation of land use and of historic structures is almost non-existent for the Lewis Burton period and for the late nineteenth century. A letter written by Union Sugar to the Director, United States Geological Survey, in 1911 suggests the disappearance of older structures, and this, at least indicates their once being there. Citing a topographical map published in 1905 (map 15), the sugar company requested a description change for a bench mark in the San Antonio Valley. The bench mark was in the way of agricultural operations. The company engineer wrote as follows:

4-5-1934



Scale 1" = 100'

Map 23. MARSHALL TO GRAY, A SPUR TO UNION SUGAR COMPANY
(Copied and reduced from a map held by the Surveyors Office,
County of Santa Barbara.)

All fences, buildings, and other prominent landmarks, which were present at the time the original bench mark was placed, have since disappeared, and there are no points to tie to, except at a great distance. The location of the county road across the floor of the valley to the foot of the Barker Grade, as shown on map, will be changed; so any reference to that is at present indefinite. The original description of location may be amended thus:

"Bench mark located about 5 miles southeast of Narlon, Santa Barbara County, California, on the south side of the San Antonio Valley, 15 feet below a private road, around the base of a hill, over which the county road from Casmalia to Lompoc passes, and known as the 'Barker Grade', being a 3½" pipe, four feet long, and 1½ feet above ground. Elevation 95.412½" [McCoy to R.E. Marshall; USGS 3/28/1911].

The USGS answer, according to a penciled note, was attached to the Marshall lease and is not available (Map 1, Site 6, Map 15 and 18). Fences erected during the Marshall period are well documented, as seen on Map 18 and in the 1922 and 1924 conveyances wherein Marshall sold Union Sugar the San Antonio Creek land it had previously leased (Appendix 6).

Documentation for the Marshall period is again incomplete, and finding interviewees who have a clear picture of the ranch as it was in 1906 is hardly possible. Dutard (1889) wrote of a fence in need of repair. Walter Spanne did not recall any fences until Marshall came to the Jesús María. No reference to fences was made in deeds of conveyance until the Marshall period, and we can see from the Union Sugar Company correspondence that Marshall was negotiating for fences to be built by them as a condition of the lease. His lease agreements with Union Sugar and with individuals for grain leases suggest that Marshall had the Jesús María surveyed and fenced by at least 1910.

Fortunately, the Jesús María Rancho Corporation recorded three grain leases at the county office to Charles W. Short in September, 1910. These disclose that the ranch, in addition to the monte and grazing land, had a number of Farm Lots. These numbered at least 20, but we have no ranch-wide map showing where they are. The first short lease agreement read as follows:

On the North by a fence extending Westerly from a point about four hundred (400) yards South of the stock corrals of the party of the first part [Marshall]: on the east by Farm Lots Nos. fourteen (14) and fifteen (15): on the south by a fence on the south line of the lands of the party of the first part; on the west by a water pipe line, extending northwardly from the headquarters occupied by said second party, and the east line of the lands plowed by said second party during the summer of 1910 [Leases 1-497; see 1-501, 507].

The second lease for 900 acres of land to the east of the first included a plot map and referred to the above as "Short's free lease for 1911" (Appendix 8). The name Elridge appeared on Lot 15, and Haverton on Lot 16. Possibly they were other lease holders. The plot map suggested survey points bounding the farm lots, and the text leads us to the conclusion that Marshall had built fences around each farm lot so that it could be cleared of livestock during the growing season but could be accessible to his livestock after the harvest. According to the lease, he had rights to all of the straw, stubble and feed remaining on the premises.

The limits placed upon Short tell us more. Short was to keep all buildings, corrals, and other improvements already on the premises in good repair. He was to make no changes or alterations in any buildings, and he was to confine any livestock he owned in the headquarters and corrals of the Jesus Maria Rancho Corporation. Whether this was lease language or referred to actual improvements on the Short lease is not known. Unless duly authorized, Short was to plant his land in oats or barley and only those, and to harvest, thresh, clean, and sack the farm products and to deliver them to the Lompoc or Tangair railroad stations on board cars or to the gatehouse, whichever the lessor requested. Further, Short was obliged to remove all manure from the barn or stable enclosures every six months and distribute it on nearby farm lands. Short was responsible for squirrel extermination, but the strychnine for poisoning was to be furnished by the lessor. Failure to keep down the squirrel population would result in Marshall taking over the extermination program and charging it up to Short. Hunting and shooting were strictly forbidden, a clause we may presume to have been written into every lease Marshall made. Reference to threshing machines and to other machinery (included because of Marshall's concern over the introduction of weeds) lets us know that farm machinery was used. E.J. Marshall II rode a combine designed for hillside work on his grandfather's ranch in the 1930s.

Marshall recorded mortgages on the ranch twice between 1911 and 1919, once again providing documentation. In 1911 the ranch improvements were insured for \$23,000, but the structures were not defined. In accordance with a judgement rendered September 28, 1917 by the Superior Court, the northeastern boundary of the Jesús María was adjusted at the Rebecca Ord-Pershine line. Addressing this adjustment, the 1919 mortgage document estimated that Marshall's part of the Jesús María came to 33,000 acres, "more or less" (SBTIT).

The Marshall's Jesús María, 1922 - 1941

In 1911 Union Sugar had harvested over 100,000 tons of beets from their farms and manufactured over 303,000 bags of sugar. This "campaign" or season statistic held steady through 1919 when production rose and reached 337,000 bags in 1921. The plant's record production coincided with the time the Marshall lease ended, and Union Sugar decided to buy the land. Marshall cleared the Jesús María of several mortgages and sold Union Sugar the portion of San Antonio Valley they had previously leased. The deed recorded

for this sale and dated October 30, 1922, and is highly informative (see Appendix 6 [Deeds 212-106]). With the 1923 map of the ranch (Map 15), it presents a good idea on paper of ranch improvements as they were in the early 1920s. (The 1922 deed was ammended in 1924, but the changes are of no interest to this study.) The 1922 deed included the following data:

Location of survey points represented largely by monuments set on fence posts but also by mounds of stone, in one instance by the corner of a barn, and in another by the Union Sugar Headquarters fence [Map 1, Site 8].

Willow thickets, the location of the existing fences on either side of Union Sugar's property including indication of fence post survey stations. The location of the Narlon Spur right of way.

The location of the Narlon Spur Railroad into the ranch from the Narlon Station.

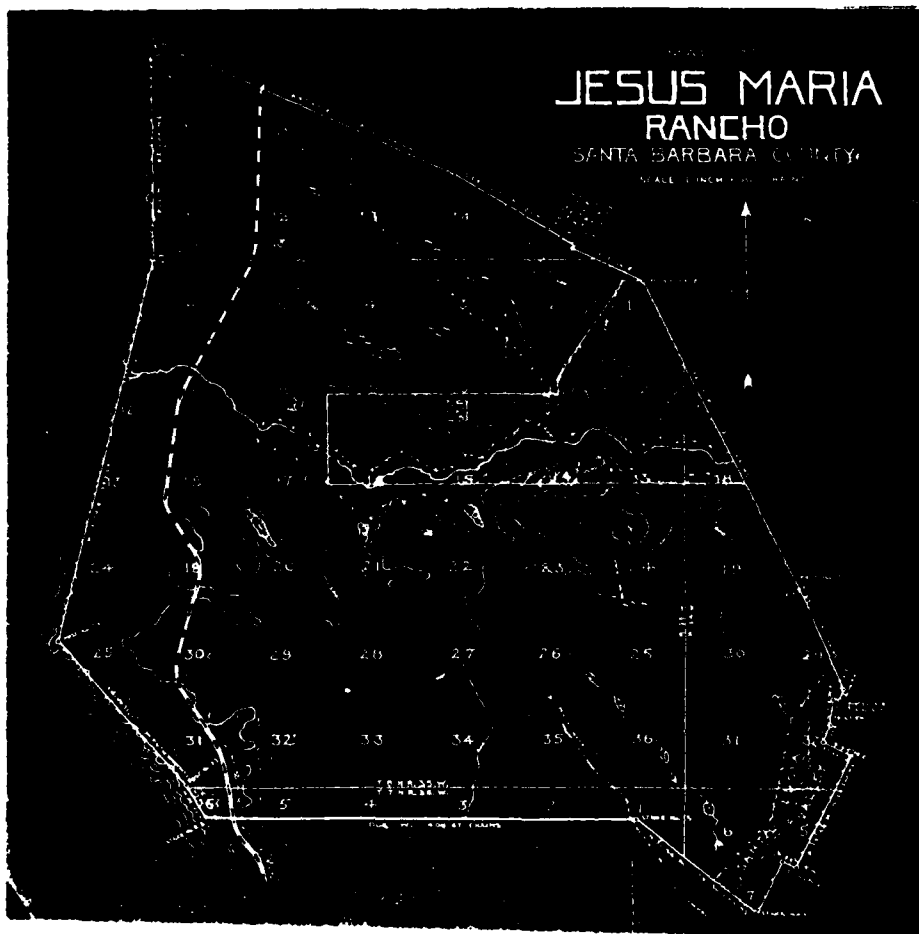
The location of Union Sugar's Headquarters, Johnson Camp [Map 1, Site 9], and Camp No. 2 [Map 1, Site 10].

The location of water bearing sources for the Headquarters and these camps. The springs were located on the Marshall Ranch and not upon the property sold to Union Sugar.

The location of three road and cattle crossings up to twenty feet wide.

A day after recording the sale of the Union Sugar land, Edwin J. Marshall, signing as President of the Casmalia Land and Improvement Company under which he then held the Jesús María acreage, granted the State of California the right to establish a State Game Refuge for ten years on all of his property at the ranch. The plat map which accompanied the grant excluded the Santa Lucia Valley Farm at the extreme south-easterly portion of the ranch and the Union Sugar property from the preserve (Map 24). Marshall granted game reserves on his land on the Rancho Casmalia and Rancho Guadalupe as well. The plat map included displays survey points, fences, and extended cadastral survey lines for Township, Range, and Sections (Deeds 212-104).

Marshall's grandson recalled recently that many deer grazed in the canyon. Ducks landed on the lakes and even swans appeared periodically. He is quite sure he saw an otter in the creek one day. Marshall never allowed shooting within a mile of headquarters, and he had problems with people from Casmalia and others who would find lots of game on the ranch and shoot down quail. Both Marshall Sr. and his son tried to start new



Map 24. GRANT OF STATE GAME RESERVATION, 1922
(Coppled from a map held by the Santa Barbara County Recorder.)

species on the ranch. His son Marcus tried to raise button quail and pheasant, but with little success.

In 1923 L.M. Prost, Surveyor, produced two maps "Part of Jesus Maria Rancho" and "Casmalia and Guadalupe Ranchos," which put on paper Marshall's improvements. The "Jesús María Rancho" (Map 18), was the part north of the east-west county road leading to the coast just south of Lompoc Landing (Deeds 272-483). The precise acreage was given as follows: Jesus Maria Ranch (net) 33,141.81; Union Sugar company 1,024.89; and Southern Pacific Railroad company 121.45. Structures and sites associated with water supply include springs, the pump house for headquarters, tanks, and the water pipeline leading to the ranch headquarters. The Jesús María Rancho is divided into parcels, each assigned an alphabetical letter and specific acreage. Samuel Ullman (retired) of the County Road Department was recently able to explain the reason for these. In order to raise cash for ranch development, Marshall had the ranch divided into the parcels. Parcel "U," for example, consisted of 655 acres. A bank loan could be made with this parcel for collateral. Ullman came upon this in the 1930s when the county wanted a right of way for the Lompoc-Casmalia Road. Marshall was willing to give the county the right of way on land that was clear, but the right of way on encumbered land had to be paid for (Interview, Ullman 7/20/82). These parcels had no relationship to farm lease plots, to fencing, nor to land use.

Six outlying ranch camps are located: Lake Canyon Camp, Santa Lucia Camp, Tangair camp, Fern Spring Camp (Map 1, Site 11), North Mesa Camp (Map 1, Site 12), and Juan Pedro Camp (Map 1, Site 13). The map shows existing railroads and the Tangair, Narlon, and Antonio shipping stations. The ranch headquarters, fenced off canyons, a fence to keep the cattle out of the dune area, cattle crossings, dirt roads, lines of eucalyptus trees, apiaries, and some indication of brush are also located.

A recent interview with Edwin J. Marshall II, grandson of the long time ranch owner, did much to clarify ranch operations for the 1922-1941 period; the data below are from that interview (July 12, 1982) unless otherwise noted. Although Mr. Marshall was careful to qualify his contributions with the warning that many of the things he heard were stories around the dinner table falling on the ears of a child, he actually recalled much more than stories. He visited the ranch regularly from 1926, when he was nine years old, and lived on it from 1933 to 1937. By the time he had left to attend Stanford University he had participated in farming and round-up activities and had seen the canyons and mesa of Jesús María first hand. Marshall grew up in Los Angeles and Pasadena, knew about the Mexican ranch Palomas, but never set foot on it. When he was a small child the Mexican Revolution was still winding down and although he recalls starting out for Palomas a few times, some revolutionary activity would come up, and as he tells it, "guess who would be dragged home." His mother was there, and he has a picture of her lying on a blanket with a Lewis Machine gun in hand, pock marks on the buildings behind her. She died in 1919 of the flu. His father, Marcus

Marshall, remarried. On one of his many trips between ranches he became ill on Palomas and died in 1931. Marshall II knew his grandfather well, lived in the big family home in Pasadena, attended Los Angeles elementary schools and moved to the Jesus Maria in 1933. He went to Santa Maria schools, graduating from the high school there.

Marshall can recall the "Officers Mess," as the Marshalls called the expanded Burton adobe, at a time before it was the integrated structure we see today. As he first knew it, there was "granddad's" room and a bathroom. Those two rooms were one unit, of adobe, builder unknown. An adjunct room and kitchen were added behind this, then another room, all up and down on different levels and constructed of various materials. Only in 1933 when the family moved to the ranch to make it their home, was there any real change. In 1933 Marshall restuccoed the whole house and made it an entity. He built a new wing for his wife and a guest room. The wing extended to the east from the old living room, and a basement was built below it. Marshall added a number of houses including a white frame guest house in 1935, bringing up redwood burl wainscotting from a Los Angeles mansion. He named it Marshallia after a flowering plant by that name. Humphrey Marshall, an eighteenth century botanist and ancestor of Marshall's, either named the plant or it was named for him. Its dainty blossom appears as a sort of logo on pamphlets that were printed about the guest ranch. Marshall permitted only close friends to use his guest ranch, even though many outsiders wrote to the ranch requesting to come (Interview, Tyler). Marshall brought all of his personal and various corporate records to the ranch from Los Angeles in 1933, and stored them in file cabinets in the basement. Soon after, the room was flooded with up to four feet of water, and many of the records were ruined. This loss has made E.J. Marshall II almost the lone source of historical information for the Marshall operations after 1922. Union sugar, Marshall recalls, continued to cultivate the valley strip, but he saw motorized trucks, not trains, haul out the beets for as far back as he can remember. There were fallow years, but the land was basically cultivated. A second observer, James Rogers, recalled that Union Sugar abandoned the plantings in about 1940 due to water problems (Interview, July 20, 1982).

The Betteravia sugar mill closed in 1927 and did not reopen until 1935. During the closure, Union Sugar continued to grow beets, shipping them to its mill up north (L. Huyck Interview). Lester Huyck, who grew up on the Huyck settlement near Surf, recalled that his brother Lawrence leased and farmed the entire 1,000 acres of Union Sugar land for the three years 1935-1938. He leased the property for \$10 an acre and trucked the beets over the Casmalia grade to Betteravia. Lester worked for his brother on the ranch and also worked at the Betteravia mill when it reopened, earning 28 cents an hour. Huyck stated that others leased the Jesús María sugar property before and after his brother, but not the whole 1,000 acres. Lawrence lived at the Union Sugar headquarters where there was a house, barn, and corrals. Lester recalled a house and barn at the Johnson Camp also. Marshall could also recall Union Sugar buildings, but he could not call

them a true headquarters for an operation. As the Marshalls wound around down from headquarters, they crossed the Union Sugar land and went up Bull Canyon on the other side of the creek. The crossing was an access for the Marshall people to get to the Burton Mesa. There were several ramshackle old buildings right at the gate where the Marshalls went through. James Rogers described them as sheds for tractors and old shacks when he knew the ranch in 1938 (Interview, 7-20-82).

Springs abounded on the Jesús María. Marshall recalled that they would dig down, put a redwood box around the water source, place a pipe in it and run it into an old bath tub or some other vessel. Earlier they made redwood troughs. Union Sugar probably exploited their rights to water bearing tracts on the Marshall ranch by plugging into one of the Marshall springs and taking the water down to one of their camps. North Mesa Camp (site 12) had to have a large trough, one to water many cattle. Burton Mesa cattle were taken across to Walker Mesa (north of headquarters) on their way to the point of shipment at Antonio. Thus there was the need to water many cattle at one time, and a large cistern is still there today.

Many of the springs came out of dunes, for example, the water for headquarters. It was necessary to find a water source that was higher than headquarters. Another source was Cat Canyon, which lay north of the pump seen on Map 18. There was a good quantity of water there, and headquarters eventually settled on this source. Also, the ranch hands would develop a spring by digging, using redwood to make a receptacle. In essence, they created a reverse septic tank or reverse cesspool. Water would flow into it, and the ranch would pump out of that for both cattle and domestic use.

Farming was carried out both by the Marshalls and by tenant farmers. The flatter mesa land was put into grain, while hilly land like that east of headquarters went for grazing. Burton Mesa, which extends north to the lip of the San Antonio Creek bed, was larger than Walker Mesa, but both were considered the lower ranch while the Casmalia Hills were considered the upper or north ranch. The Short lease described above was apparently a basic arrangement throughout Marshall's tenure. Lester Huyck said that "just about everyone" had a lease with Marshall on the Burton Mesa. They paid for it with $1/4$, $1/5$, or $1/6$ of the crop, depending on how good the land was, and all were grain leases. Sometimes the land was farmed two years and then let go fallow, and sometimes it was farmed in alternate years. There were no large scale fertilizer attempts, only the agreements on use of the manure. Marshall was fussy about fencing, and he kept up the fences separating the permanent grazing areas from the farmed sections. He had his own barbed wire made, double dipped galvanizing, and shipped into Antonio Station by carload lots. When he deeded land to the county for roads, it was on the condition that he buy the fencing, first-class fencing, and that the County put it up. The flat lands near the ocean, above the cliffs, on the north ranch, Casmalia were planted in peas and beans and tended predominantly by Japanese tenant farmers.

Fencing was basic to the grazing operation, not only to keep the cattle off the farms, but also to keep them out of the dunes or confined to a particular canyon. We see fence remnants today just west of Marshallia and extending to the north about a mile and a half to North Mesa Camp to cut off the sand dune area. Marshall would put the cattle on the stubble on the Walker Mesa but did not want them in the sand dunes. Sand dunes support one bovine for every 120 acres, and it was not worth the effort to shag one at round up time. The fattening range was really the north end. Marshall described the burr clover and other grasses as "magnificent up there" as opposed to the Burton and Walker Mesas. On the mesas there was only the residue from farming activities and the volunteers for the next year. This hilly area was north of the county road, up to Point Sal, and then over the ridge to Point Lospe, and towards Casmalia as far as the ranch boundary.

E.J. Marshall II could remember that even in his time the Palomas Ranch was in operation for raising cattle, and the Jesús María was a place to fatten the herd. When the Hoover administration came in, a tariff was placed on imported cattle. His grandfather would bring emaciated calves across the border, bring them to the Jesús María and on an even larger scale to the old A. B. Fall ranch in Alamogordo, New Mexico, which he had acquired. After the calves were fattened they would be sold, when the time was propitious, and the tariff would be paid based on the weight noted when they crossed the border. This made the Alamogordo Ranch like a bonded warehouse common to the distilled liquor industry. Marshall conceived of this idea in the early 1930s. At about the same time, Marshall decided to make the Jesus Maria a breeding ground for purebred cattle. He brought in good bulls, and they were kept in a large fenced canyon across the creek and southwest of headquarters, Bull Canyon. Bull Canyon had formerly been the site of a 19th century slaughter and tanning operation (Interview, L. Spanne). The depression hit, putting an end to the breeding business, and Marshall went back to fattening only at the ranch.

Marshall was a cattle man, but he had been in the midst of sheep wars and cattle wars and all the other disputes the west could offer. In the late 1920s, just to prove to himself that sheep raising was not viable, he ran a flock on the Burton Mesa. The venture was unsuccessful as they took root and all from the soil and there was little or no volunteer the next year. Sheep grazing lasted at most only two or three years and never touched the sand dune areas. As Marshall II proclaimed, they would have lost them out there, i.e., they would blend into the background, and at round up time it would have been impossible to find them. "In the case of either cattle or sheep you could have a dozen animals out there, and if they did not make a noise you could comb and comb and never find them." He was sure no sheep had been allowed to graze the dunes in the Marshall era.

Marshall stated that the outlying camps belonging to the ranch were used by both the cowboys and the farmers. A typical camp would be an assemblage of shacks for people at round up use overnite and then continue the round up in the morning. A tenant farmer could have acreage near a

camp and this fellow would fix up one of the shacks for a longer stay, perhaps patching up the roof with a flattened tin can. Marshall could not conceive of them as historical sites, knew nothing of their origins or permanency of location. The only permanent camp was at the north end on Casmalia. A man and his family lived in that house and were there to take care of the cattle. In the 1930s that man was to take care of the rustlers, who would find cattle near the fence, shoot them, and take the carcass away.

Marshall had at least three other enterprises on the ranch: firewood, poultry raising and apiaries. The firewood business began early when Marshall planted thousands of eucalyptus to act as a wind break while they were growing and to be cut for firewood when they reached maturity. The grandson recalled that they were planted "everyplace," between sand dunes, in clumps, and along fence lines. Then he remarked, "Someone managed to think of electricity and gas. That shot the firewood business." The trees grew to a very large size without even being cropped.

Marshall ran up to 10,000 turkeys on the Burton Mesa. They were herded, not penned, and the operation was much like that of sheep herding. Australian sheep dogs aided the herders, and at night they were taken to great clumps of eucalypti. In the middle of each grove would be a little house and pens with banks of perches. The turkeys lasted for a number of years, but they were hard to raise, having a high mortality rate as chicks. Extensive poultry facilities stood behind headquarters reaching into the dunes to quarter the chickens. The Marshalls maintained a headquarters apiary and several outlying apiaries for many years.

The Marshalls were aware of an Indian past on their ranch land. Once in the late 1920s or early 1930s they experienced a violent wind. Someone discovered that west of Casmalia where the railroad turned to go south, much sand had blown away and revealed an Indian village. The family got in touch with the Santa Barbara Natural History Museum, and some archaeologist came out to see the site. In a matter of years the village was covered over again (Marshall).

Edwin J. Marshall died on March 4, 1937. His wife left Marshallia, and the ranch fell into the hands of the Rancho Jesús María, incorporated and presided over by Frank A. Long. As will be recalled, Marshall II's father had remarried. That marriage ended in divorce, and the wife married Frank Long. In 1937 young E. J. Marshall II entered Stanford University. Frank Long stepped in and made a deal whereby he bought the ranch, giving his note to the bank.

Ed Vail, whose family owned Santa Rosa Island and other ranch property in San Diego County, signed a grazing lease with Long for the Jesús María's grazing land. Prior to 1937 Ed Vail and James Rogers had leased the Jalama Ranch for their cattle. Once Vail had the Jesús María lease he and Rogers rode back and forth trading help. Then Bixby bought the Jalama Ranch and Rogers bought the Packard Ranch from the Security First National Bank, which had gotten it on a defaulted loan. Roger's spread consisted of about 9600 acres on the Santa Ynez river almost up to what was known as the Dyer

Bridge. Rose Packard Shyver still owned part of the family ranch to the east. Together, Rogers and Vail ran thousands of cattle on the Jesus Maria, making Marshallia their headquarters (Interviews, Rogers and Tyler). Their employees used the bunk house, among them James Olivera. Rogers recalls that in 1939 there were a half a dozen farm houses on the Packard Ranch mesa and lots of farm buildings related to the years of share cropping there. He saw no sheep on the ranch and never heard anyone speak of sheep.

Frank Long leased the guest ranch to Phiffs and Longabardi in 1937, but in 1939 Morgan S. Tyler and his wife Marion took over the lease. Marion Tyler recently consented to an interview in her Santa Monica home where she keeps some of the Marshallia memorabilia. She recalled that Frank Long and his wife never lived at the ranch. Frank visited from time to time to hunt quail, and only quail. No other hunting was permitted. Marion Tyler's recollection of land use for the ten years she was at the Jesus Maria (1939-1949) was the cattle operation, the apiaries, and the poultry houses behind Marshallia. She recalled no agriculture.

Between 1939 and 1941, the Tylers served the elite at the guest ranch attracting a good many movie people: Rod Cameron, María Montez, Jeanette McDonald, and Marie Wilson. Gus Ríos, a full-blooded Indian active on the ranch for years, took people out for rides. The ranch guests habitually rode to the beach for their picnics, carefully fastening the gates as they crossed Vail's lease. Ed Vail was a man to be reckoned with, and although he did allow ranch guests to ride across his lease, he had a reputation for harsh words. He resented the "dude ranch." No one dared to stop and picnic where the herds grazed or to loiter in any way. The presence of rattlesnakes also discouraged stopping in the fields. At the beach, guests were warned against swimming, but nonetheless one man in the Ernest Lubich party tried it and drowned. Often the guests rode to old Lompoc Landing where a few planks still remained as landmarks. Mrs. Tyler had never heard of anyone picking up Indian artifacts or disturbing Indian sites. She was astounded to find that Indians had ever lived near or on the ranch.

Only one movie company stayed at the ranch between 1939 and 1941. It did not use the dunes, and there is no indication that the dunes were ever used for movie work. Mrs. Tyler's photographs show a pond that lay just west of Marshallia. A small row boat appeared in it. Another showed cattle at the beach, the location was unknown. Mrs. Tyler rode horseback a good deal, but she could not recall any of the cattle camps, out-buildings, or barns on the Jesus Maria. The Huyck house was the only house she remembered aside from the headquarters area where she lived.

As is well known, the government came in on a condemnation and bought the Jesus Maria Ranch from Frank Long in September 1941. It constituted Tract 1 of the military reservation. The Petrol Corporation had purchased several small parcels on the north Jesús María Rancho (old Casmalia), and they were purchased as tract 4. Union Sugar then sold the government the San Antonio Creek strip (Real Estate Map, Jerry Wolf, VAFB). James Rogers had to sell the Packard Ranch. Rogers and Vail, under Vail's lease were

permitted to run cattle on the property until December 31, 1941. The Marshallia Guest Ranch, Inc. was permitted to operate the guest ranch until February, 1942. The Tylers, however, made an agreement with the Army to run the guest ranch for army officer personnel after that date. The deed for the sale once again brought together data concerning easements, rights of way, and survey (Appendix 7) (Deeds 538-170).

CAMP COOKE

Grazing

When the Army took over the ranch, it intended to lease back most of the land to Ed Vail. The Army looked upon the Jesús María Rancho purchase as about 64,000 acres, less than 1,000 acres of it bottom land. After they had taken all the rock the Army needed from the area near Lions Head Rock, they had no military use for the land north of the railroad (HQ/Adm Corres. 11/25/41). This was the only part of the original lease that Rogers and Vail had in 1942. It amounted to about 10,000 acres and they leased it on a six-month basis for cattle only. The government took out nearly all of the Rogers and Vail fencing on the Jesús María. This made Rogers and Vail talk about getting a couple of bands of sheep, since with sheep they would not have to fence. They did not run sheep, and instead fenced the parts they did use (Interview, Rogers 7-20-82). When Camp Cooke closed down for the second time in 1953, there were so few people there that the cantonment area was deserted and fell into a state of disrepair and high-growing weeds. In order to keep the grasses down the army leased the area to sheep herders. The sheep were tended with dogs and a herder, kept on the Burton Mesa, primarily in the cantonment area, and were not herded north of the San Antonio Creek or onto the dunes, (Jerry Wolf, Real Estate, VARB, July 7, 1982). In the other parts of the Jesus Maria, grazing leases continued intermittently as they do today.

Guest Ranch

The Tylers leased the guest ranch privilege from the Army until 1949 when the camp closures made the business unprofitable. Meanwhile, certain changes took place at the old Marshall Headquarters, "Officers Mess," the adobe with additions. In 1942 a fire charred part of the wooden roof joist and caused extensive damage. While making repairs, one adobe wall may have been altered. The Army also modernized the building with a central heating system and redecorations throughout. Perhaps it was at this time that the Army painted over the redwood burl wainscotting in green. The house was so modernized or "messed up," depending upon the point of view, that as Marshall II noted, very little there reflects what it used to look like (Interview, July 20, 1982).

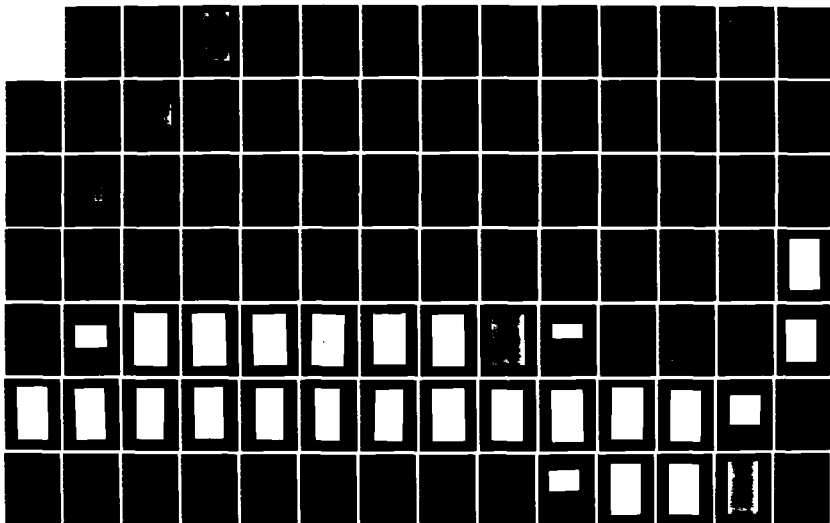
ARCHAEOLOGICAL INVESTIGATIONS ON THE SAN ANTONIO
TERRACE VANDENBERG AIR F. (U) CHAMBERS CONSULTANTS AND
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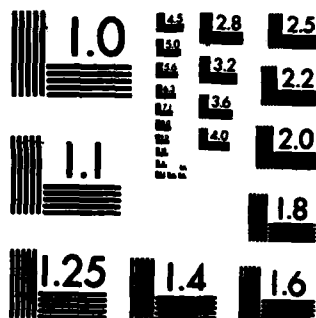
2/3

PLANNERS STANTON
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Camp Cooke Installations

Alterations to the Jesús María first came under the heading of the Lompoc-Santa Maria Project and included not only the layout of the usual Army base at the cantonment area, but also roads, a railroad spur from Tangair Station, and special facilities such as a machine gun range, pistol range, anti-aircraft range, rifle range, anti-tank range, and moving vehicle range (Map 25). All of these installations were on the Burton Mesa and south of the study zone. A parking area near the beach was provided for the amphibious tractors. A mock German village was built on the site of the old Huyck settlement, and north of Surf the Huyck houses were demolished.

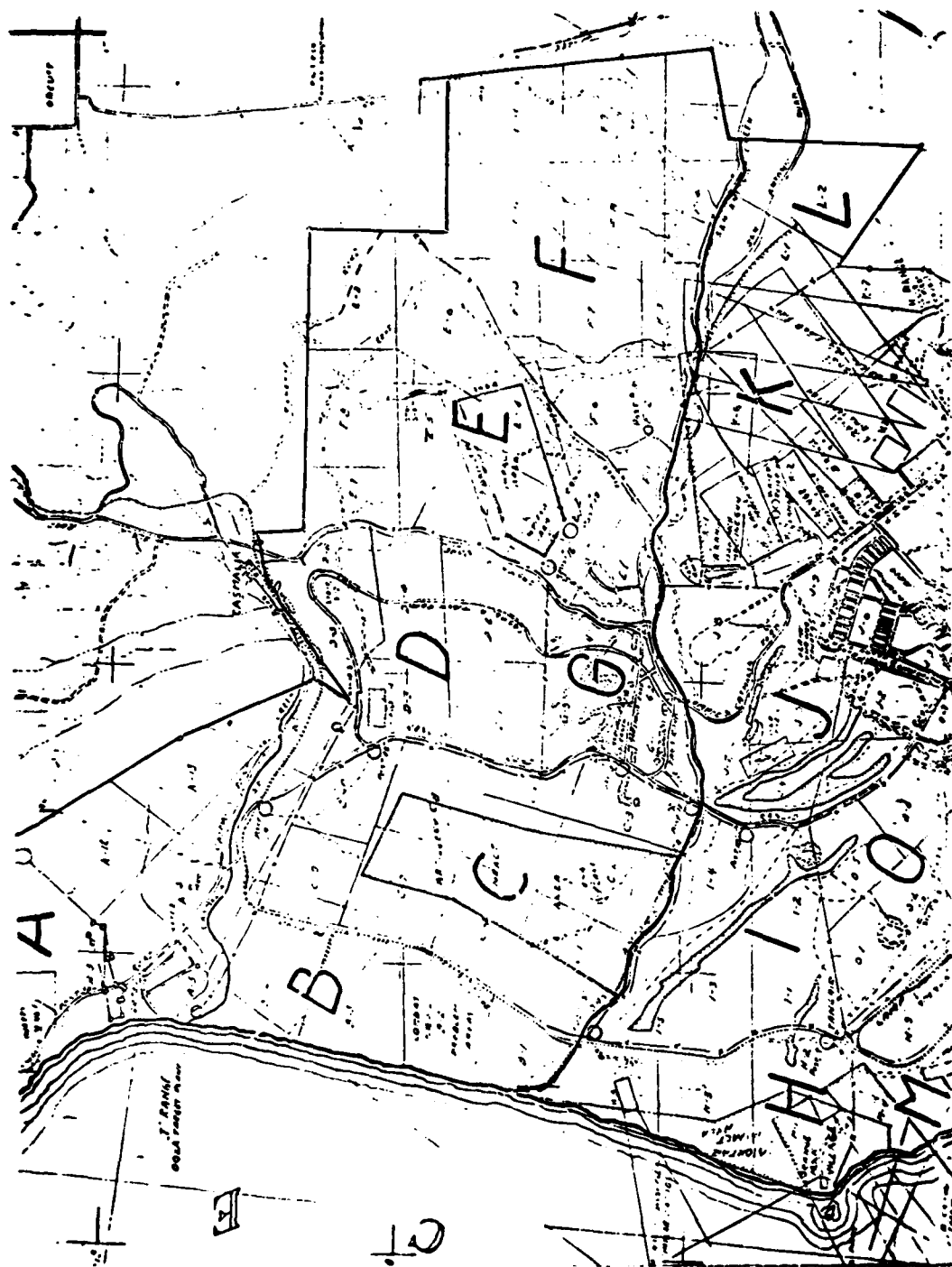
Camp Cooke Land Use

Observers who knew the Jesús María before Army use and saw it afterwards were shocked by the transformation that took place in the matter of a year. This was largely, of course, on Burton Mesa, as Map 26 displays. However, training took place everywhere. The 5th Armored division came in February and March of 1942. They were followed by other tenants such as the 6th, 11th, 13th, and 20th Armored divisions, and the 86th and 97th Infantry Divisions. The Second Philippine Infantry Regiment also trained at Camp Cooke. Observers declared that tank exercises centered on the mesas; however, the tanks, half track jeeps, and trucks ran all over the camp including the dune areas (Interviews, Ullman and Rogers). Apparently the dunes were not used for any specific vehicular purpose.

As Map 26 displays, the dunes were used for artillery fire (see letter coordinate "C"). Area "E" on Map 26 as outlined was used largely for tanks. Artillery fire, 75 and 105 mm, was observed from the tank, and thus we see no observation posts in this area east of the Lompoc-Casmalia Road (Interview, Gustafson). Four observation posts were located on the southerly 20,000 acres of Camp Cooke that later became the Naval Missile Facility, Point Arguello. That was where firing exercises were concentrated. There was, as is seen on Map 26, a mortar impact area on the beach south of the San Antonio Creek and machine gun ranges. "Unexploded Ordnance" signs on VAFB attest to the extent of yet-to-be-retrieved explosives in the study zone.

Amphibious beach landings were common and were made as far north as Point Sal. They were common around the Casmalia Creek vicinity, but perhaps the bulk of these landings was made close to Point Purisima (Interview, Wolf). Al Cordova of the 747th Amphibious Tractor Battalion recalled that in 1951-1952 his battalion practiced landings on the beach at Camp Cooke after going out to sea some 40 miles. Each amphibious vessel beached a tank and twenty or so men, who then drove the tank up over the dunes and inland (Interview, Cordova).

Two photos contributed to the study. In the first, the 11th Armored Division was using the Santa Ynez River for stream crossing exercises (11th Armd. Div. Photo, Mil. History Institute). The second showed a Stuart Mark I light tank crossing San Antonio Creek (Base Historian's Office, VAFB).



Map 26. CAMP COOKE IMPACT AREAS, EXPLOSIVE ORDNANCE DISPOSAL
VANDENBERG AIR FORCE BASE

Since Camp Cooke is considered as no more than a geographical location in Army records, no annual reports or histories have ever been written about it. Instead, the divisions and other tenant units that used the camp kept their own histories. The U.S. Army Military History Institute at Carlisle Barracks, Pennsylvania, has few records of Camp Cooke and no pertinent maps or drawings. All retired records of the Camp or the Divisions that used it, if extant, would be in the Modern Military Branch, National Archives, Washington, D.C. Although Archivist Coffee there has made a cursory search of their files, he did not find the documents needed to tell us exactly how the tenant divisions used Camp Cooke. A personal search at the Washington archives was beyond the scope of this study.

The Army Military History Institute was able to send one draft copy of a "Visit of Inspection to Camp Cooke, California" made in November of 1943 (Appendix 12). In addition to that, a few pages from the published division histories of the 6th and 11th Armored Divisions devoted to Camp Cooke were copied and mailed. The following material from them supplies a general idea of some training exercises carried out for World War II.

The 6th Armored Division arrived at the Camp in March, 1943 and left for the European theatre in January, 1944. Among the subjects emphasized there were the following: assault of fortified areas, mines and booby traps, active and passive anti-aircraft and anti-tank training, reconnaissance and camouflage. Considerable time was spent on evening field exercises and movement of bivouac areas as practice for night attacks. Field exercises stressed air-ground liaison during the battalian training phase and attack of fortified locations. Under Brigadier General Robert W. Grow, the division artillery stressed "the conduct of fire, including both forward observer and lateral bracket methods; operation of fire direction centers; speed and accuracy in multiple survey tasks; and movement of large shifts of fire" (Hofmann n.d.:30).

The history of the 11th Armored division spends less time on personnel and more on activities, thus giving us a better idea of land use on the study area. The Eleventh came from the Desert Training Command to Camp Cooke in the spring of 1945. The training goals were described as follows:

With the approach of D-Day, which was common knowledge, our ensuing training was considered in the light of "pay dirt." The following objectives were emphasized:

Final qualifications in marksmanship with all weapons, both of an individual character and of a crew nature, including the 55mm Anti-tank Cannon.

Final phases of artillery firing including fires over tanks and infantry, concentration of massed fires, etc.

Tactical employment of tanks in various roles--offense, delaying action, defense, etc.

Constant small exercises utilizing all supporting fires--machine guns, mortars, bazookas, artillery [Steward 1955:41-42].

With battle reports coming in from Europe and the Pacific, much training was given in air-ground liaison and in close air support for ground troops. The Navy supplied planes from San Diego for close support aviation exercises. The history of the division recited that a "minor" incident on May 12, 1945 restricted materially their available firing areas. Steward wrote:

On that date, with all battalions participating, a fluke ricochet struck the crack Daylight Limited of the Southern Pacific. Fragments penetrated the dining car injuring two persons. As a precaution, the northern artillery area was withdrawn from use, which thereafter confined all firing to the southern area [Steward 1955:42].

The main camp was inactivated in June 1946 and caretaker personnel constituted Camp Cooke's entire complement. It was reactivated in August 1950 after the outbreak of the Korean War. The following combat units became tenants of Camp Cooke: 13th and 20th Armored Divisions, the 40th, 44th, 86th, and 91st Infantry Divisions. There were also tank units. The last of these units left Camp Cooke in December 1952, but closure had already been announced by the Army on November 7, 1952. The camp was inactivated on February 1, 1953, and the land again devoted to agriculture and grazing leases (Donohue "Revival, Reclosure and Reassignment 1950-1956").

VANDENBERG AIR FORCE BASE

In 1956 the Air Force negotiated for Camp Cooke to turn it into a modern aerospace center, receiving the northern half in mid-1957. Titan silos were installed north of Marshallia and above-ground Atlas gantries were built southwest of the study zone. It was named Vandenberg Air Force Base in October 1958. Weapons from the entire ICBM arsenal were flight tested beginning in 1959, and today more than 1480 major launches have been successfully conducted from Vandenberg (Donohue "Vandenberg AFB"). On December 3, 1960, an Operational Systems Test Facility for the Titan I ballistic missile was completely destroyed, ejecting a 300,000 pound steel cribbing from the silo. Earth tremors were felt almost 15 miles away.

Marshallia saw continued use by officer personnel. A fire broke out in April 1963 when the heating plant housed in the old basement started the

flames. The east wing was destroyed along with Marshall's living room, resulting in further modernization and change.

In addition to the above-ground missile installations, one of the most sophisticated communications systems in the world lies underground, crisscrossing the entire Air Force Base (Interview: Jerry Wolf, Real Estate, VAFB). Underground telecommunications are intermittently marked on the surface throughout the base.

Cattle grazing leases are still extant on the base, and adequate fencing controls the movement of the herds (Interview, Wolf).

SPECIAL TOPICS

Water on the Jesús María

Government agencies published studies on the geologic structure and water bearing qualities of the San Antonio Creek valley as early as 1907. A definitive Geological Survey Water Supply Paper, No. 1666, was written by Kenneth Muir and published in 1964. This brought prior research up to date, and the general material below is drawn from that publication, Geology and Ground Water of San Antonio Creek Valley, Santa Barbara County California. Muir's study area included the southerly Soloman and Purisima Hills and Shuman Canyon. He wrote that "ground water in the area moves from the Soloman and Purisima Hills toward the center of the valley and then westward down the valley toward the ocean" (Muir 1964:1). Muir discussed water flow from an historical standpoint, but he did not mention any water coming from rivers in Shuman Canyon at any time. Such a flow was not documented in any source examined by this researcher.

San Antonio Creek valley extends 25 miles westward from its beginning which is about four miles east of the town of Los Alamos.

The Jesus Maria Rancho study area lies downstream where, unlike some of the upstream portions of the creek, the flow is perennial. This condition is present due to consolidated Tertiary rock that cut across and underlie the valley at a shallow depth below (i.e., west of) Harris, forming a subsurface barrier. The barrier causes almost all ground water to move upward to the land surface where it discharges continuously into San Antonio Creek and flows to the sea. Harris is at Harris Canyon three miles east of the study zone. The San Antonio Terrace and the Burton Mesa, which flank the valley on the north and south respectively, contribute no surface drainage to the creek. Dune sand covers about 60 percent of the San Antonio Terrace and is so permeable that there is no measureable runoff. On Burton Mesa drifting sand near the ocean has formed dunes that extend inland about a mile and choke the outlets of several of the intermittent streams that drain the Mesa. Aside from the dunes, both the Terrace and the Mesa have very permeable soil and moderately permeable subsoil.

The water termed "runoff," that part of the precipitation not absorbed into the soil, taken by plants or evaporated, was measured at a gaging station at Harris beginning in January 1940. After September 1955 a new

station was established at a place about five miles downstream called "San Antonio Creek near Casmalia." At this station the flow was perennial. Muir's table of measured runoff, 1940-1958, shows an average annual runoff of about 800 acre-feet with about 90 percent of the runoff occurring from January through April.

Muir found that the ground water in the San Antonio Creek Valley was very high in dissolved-mineral matter. In the lower valley, west of the Harris subsurface barrier, the dissolved-solids content was more than 3,000 parts per million (ppm). Water is considered objectionable for ordinary domestic purposes when it reaches a level of only 100 ppm. Historically, most of the water pumped in the valley has been for irrigation, although lesser amounts have been pumped for stock and domestic use. Muir's data show that the water quality in the valley has not changed appreciably between 1927 and 1958. He believes sea water intrusion into the valley was unlikely.

The alluvium in the lower valley is quite deep. Near the coast, tongues of clay and sand have been deposited by the sea. The alluvium laid down by the streams was measured at two wells near the coast close to the creek bed; it was found to be about 90 feet thick. The alluvium thinned to 65 feet between Harris and the Marshallia Ranch and 1 mile south of Marshallia it was only about 30 feet thick. The lower two-thirds of the alluvium was found to be saturated with water under most of the upper valley. However, the logs of wells in the area between Harris and the ocean indicated that the alluvium there was fine grained and had low permeability. It thus could not support sustained pumping from wells. Muir found the dune sand to contain little water because it lay above the zone of saturation. He suggested that small amounts of water for domestic or stock use could be taken from small perched water bodies within the dune sand (Figure 2a, 2b).

Springs and seeps have appeared along both flanks of the valley. These occur when the ground water moves downgradient along bedding planes within the unconsolidated deposits and where these bedding planes intersect the land surface. Several wells that tapped the base of the alluvium near the creek flowed in the study zone. Muir's map showing geology and location of water wells in 1964 is included (Map 27a, 27b). The four wells along the creek south and west of Marshallia were classified as unused or as abandoned. One abandoned well was at the ranch headquarters, and one flowing well was to the east in Section 1. A spring or seep was recorded in Section 36 south of Casmalia. The water for Vandenberg AFB is obtained from wells in the Lompoc Plain, San Antonio Valley, and in Lompoc Terrace.

Union Sugar experienced drought conditions on their own ranch and on leased farms as early as 1900. Their correspondence reveals that the manager had decided to farm independently of rainfall, if possible, from that time forward. By 1910 the company was purchasing slip-joint water pipe for hurried irrigation jobs, developing water wells along the upper San Antonio Valley, and buying considerable amounts of well casing. As they went in to develop farm land for experimental purposes they wrote into the contracts the privilege of drilling a number of wells so as to assure a supply of water for

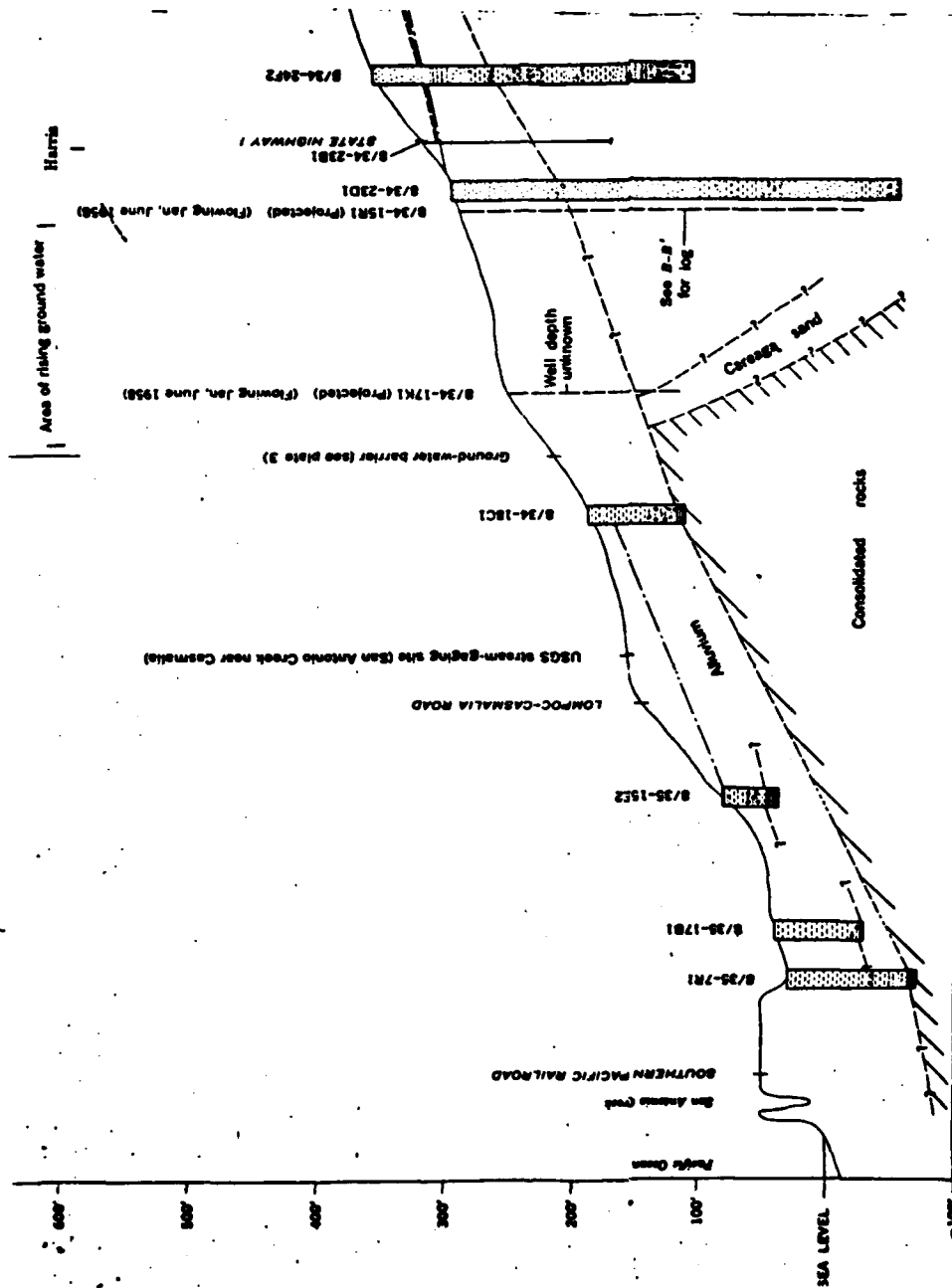
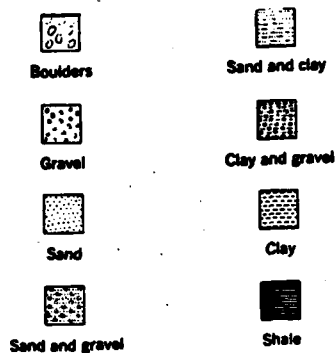


Figure 2a. SECTION DOWN THE [San Antonio] VALLEY
SHOWING WATER LEVEL PROFILES IN DECEMBER 1943
AND JANUARY AND JUNE 1958
(Reproduced and reduced from Muir 1964.)



WATER-LEVEL PROFILES

December 1943

January 1958

June 1958

Wells without logs are shown with their depth of penetration only

WELL-NUMBERING SYSTEM

The well-numbering system used in Santa Barbara County investigations conforms to that used in nearly all ground-water investigations made by the Geological Survey in California since 1940. It has been adopted as official by the California Department of Water Resources and by the California Pollution Control Board for use throughout the State.

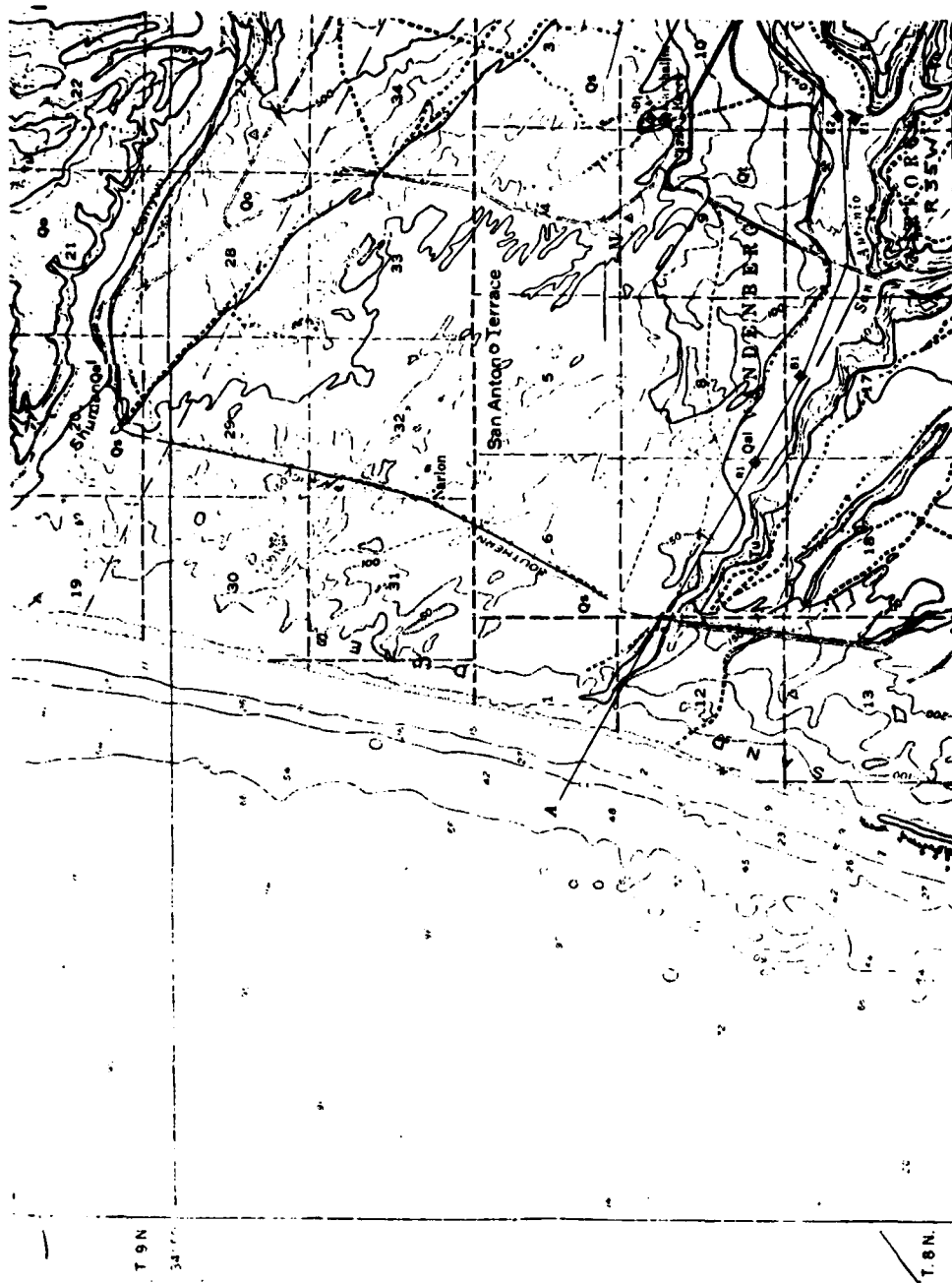
The wells are assigned numbers according to their location in the rectangular system for the subdivision of public land. For example, in the number 8/33-21L1 the part of the symbol that precedes the hyphen indicates the township and range (T. 8 N., R. 33 W.). The one or two digits following the hyphen indicate the section (sec. 21), and the letter indicates the 40-acre subdivision of the section as shown in fig. 2.

The wells are numbered serially within each 40-acre tract as indicated by the final digit of the symbol. Thus well 8/33-21L1 is the first well to be listed in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21. As almost all

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

FIGURE 2.—Well numbering system.

Figure 2b. EXPLANATION OF FIGURE 2a



Map 27a. PART I: SAN ANTONIO CREEK VALLEY VICINITY, CALIFORNIA
 SHOWING GEOLOGY AND LOCATION OF WATER WELLS
 (Reproduced from Muir 1964.)



Map 27b. PART II: SAN ANTONIO CREEK VALLEY VICINITY, CALIFORNIA
SHOWING GEOLOGY AND LOCATION OF WATER WELLS
(Reproduced from Muir 1964.)

EXPLANATION

Recent	<p>Qs Dune sand Sand, in part actively drifting, largely unsaturated; yields water to wells in small quantity</p>	<p>Contact, approximately located U D Fault Dashed where approximately located, dotted where concealed U, upstream side; D, downstream side</p>
Pleistocene	<p>Qal Alluvium Gravel, sand, silt and clay, permeable, yields water to wells</p> <p>Qt Terrace deposits Crossbedded gravel, sand, and clay, moderately permeable but largely unsaturated</p> <p>Qo Occult sand Gravel, sand, and clay, yields water to wells locally in small quantity</p>	<p>Anticline Showing trace of axial plane and bearing and plunge of axis. Dashed where approximately located</p> <p>Syncline Showing trace of axial plane and bearing and plunge of axis. Dashed where approximately located</p> <p>Strike and dip of beds</p> <p>Strike and dip of overturned beds</p>
Pliocene and Pleistocene (?)	<p>QOTw Pao Robles formation Gravel, sand, silt, clay, and a few thin limestone beds near base; yields water freely to wells</p>	<p>Approximate dip of beds; strike undetermined G1 2 Irrigation well</p>
Pliocene	<p>Tc Caveage sand Marine sand and some gravel and silt, includes two members locally; yields water to wells in moderate quantity</p>	<p>Domestic and stock well Flowing well Unused well</p>
Miocene and Pliocene	<p>Tu Consolidated rocks Sandstone, siltstone, mudstone, and shale; includes Fern mudstone, Sequoia formation, and Monterey shale; yields minor amounts of water to wells from joints and fractures</p>	<p>Abandoned or destroyed well Spring or seep</p>

Map 27c. EXPLANATION OF SYMBOLS ON MAPS 27a and 27b

irrigating purposes. An excerpt from the Marshall lease in 1909 read as follows:

And it is further agreed that the Company shall have the right to dig and bore wells and pits for the purpose of developing water for irrigation, or making other improvements on the demised property or premises; also the right to bring water from other sources, if so desired, upon said premises, and to make all necessary reservoirs and ditches to convey said water over said premises, the Company hereby agreeing that any wells put on said premises by it shall remain on said premises for the use and benefit of the owner at the expiration of the term herein mentioned [Atkinson to Lillenthall, June, 1910; Union Sugar Records].

In July 1909 Manager Atkinson reported that a test well had reached a depth of 120 feet with no favorable showings for water although some water was encountered at 83 feet. Atkinson reported later in the month that he felt that some other project would have to be designed to solve the irrigation problem on the Jesús María.

Haviland and Tibbetts of San Francisco made a reclamation and drainage survey of the proposed Union Sugar lease in August, 1910 (Map 22 may be their map). The drainage ditch or canal was not planned for the entire length of the lease property and was intended to cover only part of the land. In his correspondence Atkinson stated that the canal (extending eastward) would connect the center of the monte with the existing creek. The creek from that point on to the eastern boundary would carry the flood waters. Once the Narlon Spur Railroad began to develop, the drainage canal was essential in order to keep the land along the creek from flooding during the winter season. A road on flat land would be feasible only when so protected. Union Sugar ordered 6600 feet of 8" drain tile and 5460 feet of 12" drain tile to be shipped to Narlon. The manager wrote Southern Pacific Railroad that the tile was to be put in to the end of the Narlon Spur.

Although the above description of the canal is indeed sketchy, a flood in 1914 caused the Union Sugar Engineer to visit the ranch and to write a report on the Marshall Ranch flood conditions that tells us much more about the creek drainage. Accordingly, the "head of the canal" was at its western extremity about 5,000 feet east of the Southern Pacific Railroad right of way. The canal ran eastward for about 8,000 feet where it met a 12,000 foot tile line constructed of the 8" and 12" drain mentioned above running along the south side of the valley eastward to the upper canyon. From this point eastward to the boundary of the Jesús María, the creek flowed in its natural bed which Union Sugar had cleared of tule and willows. The canal itself apparently ended at the western extremity of the Union Sugar lease, but a drain ditch commonly known as Pratt Ditch carried the water westward at least as far as the Southern Pacific Railroad line. According a survey conducted in 1922-1923 by J. D. McGregor, a licensed surveyor of Betteravia

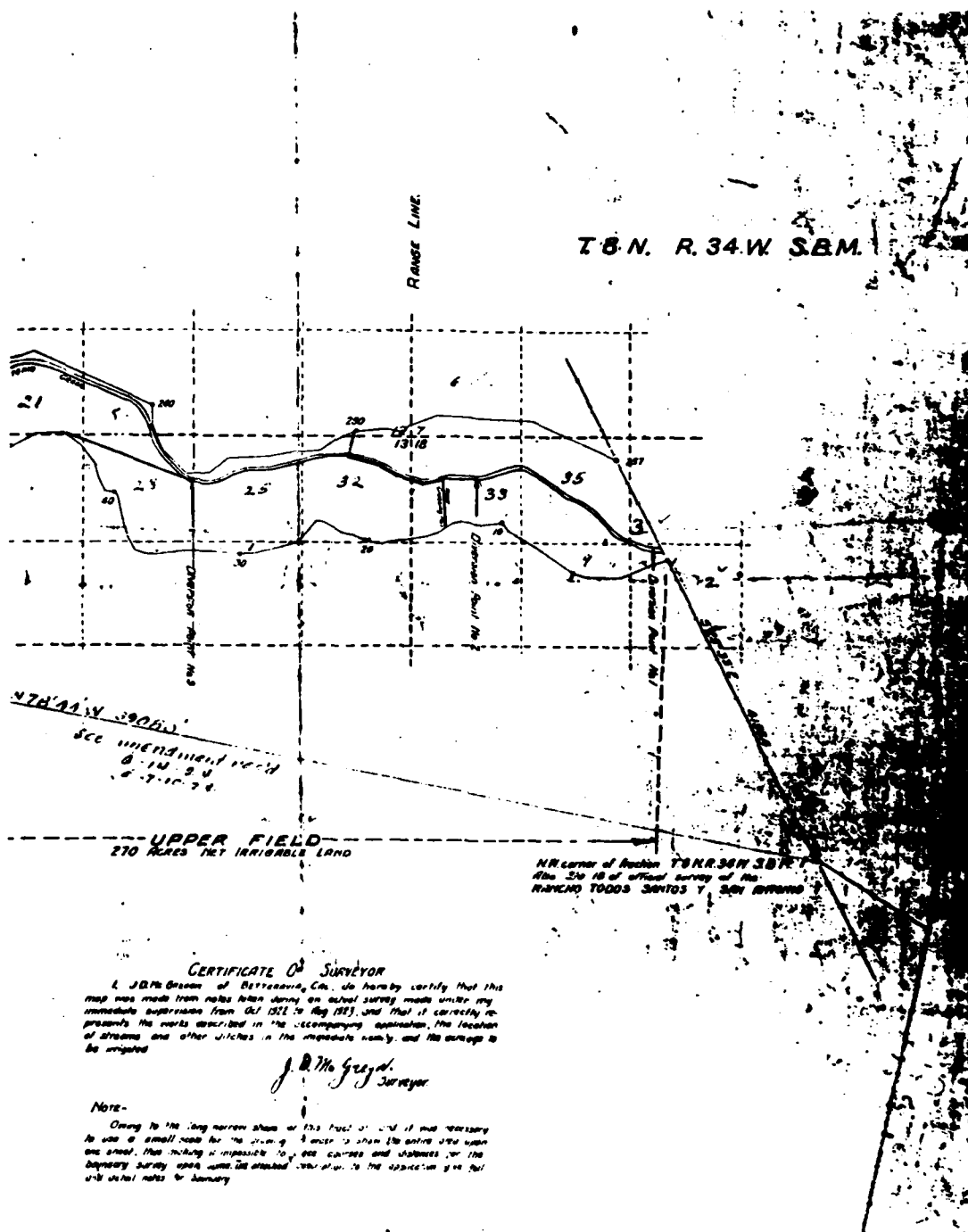
for the purpose of establishing the boundaries of the part of the Jesús María to be sold to Union Sugar. The Pratt Ditch lay at the western extremity of that property at Survey Station 169, i.e., where the fence line on the lease boundary crossed the San Antonio Creek (Map 18).

The 1914 flood caused the creek to flow over the bank, and it cut gullies in the plowed ground as the water made its way towards the south side of the valley. The 6" tile line commencing at the County Road was washed out except for 500 feet at the lower end. The levee at the upper end of the canal succeeded in deflecting all the water into the canal, and the canal held until the bottom began to silt up. By February 27 the canal from its head eastward to "Jap Camp" had filled up. This decreased the capacity of the canal, the water raised, and went over the bank at three points: in front of "the camp" ("Jap Camp"), opposite the lower beet loading station (Marshall II) and at the place where the canal struck the south side of the valley. The bridge at the head of the canal went out. The engineer suggested building a line of levees along the south bank of the canal 4 feet high, 15 feet wide at the base, and 3 feet on top. The estimate of cost covered cleaning out the canal, dredging, using scrapers to build the levees, and new lumber for a boat (Union Sugar Records).

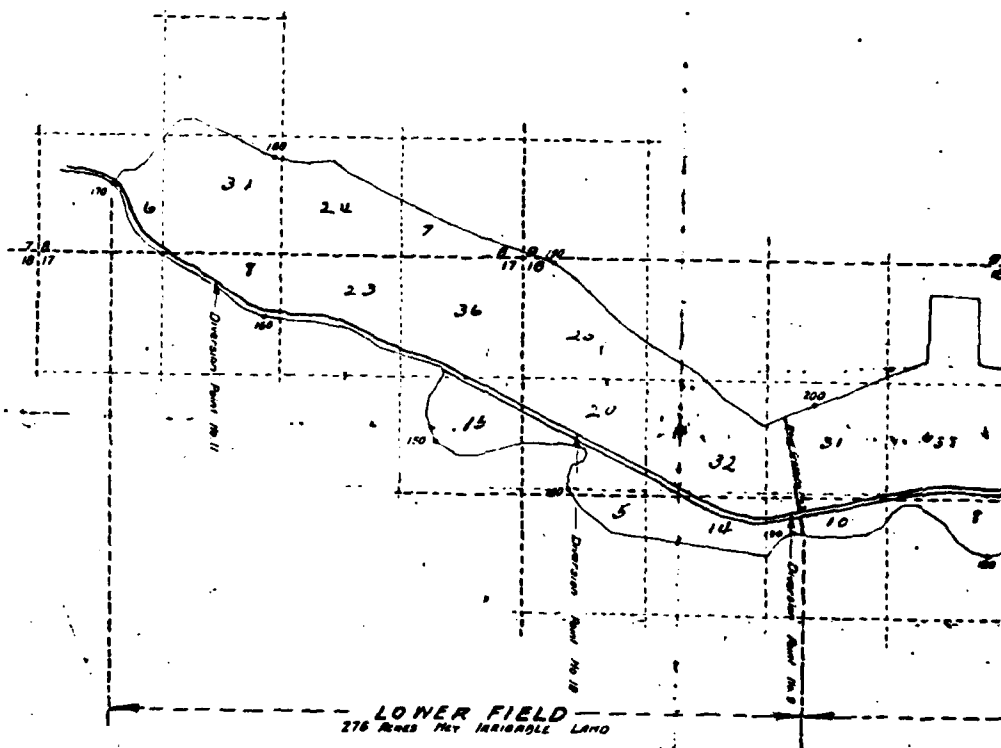
Union Sugar had been pumping water from San Antonio Creek for the Harris Ranch plantings as early as 1909. The company probably began this practice on the Jesús María shortly after that time; however, the earliest record of a license for diversion and use of water from the State of California was in 1924 (Licenses, Plats, SBCR File Nos. 1897, 1898). The permit entitled the company one and five tenths (1.5) cubic feet of water per second from about April 15 to about August 15 of each season. The license was renewed in 1932 but revoked in 1955 because Union Sugar had failed to put the water to any useful purpose for a period of three years. Map 28a, 28b, and 28c displays the diversion points numbered one through eleven and commencing at the eastern border of the ranch.

As will be recalled, the Union Sugar Plant at Betteravia closed down in 1927 and reopened in August 1934. The license renewal at San Antonio Creek in 1932 could have been in anticipation of plantings to be made for the reopening. The 7 year gap in the local plant demand for sugar beets could be looked upon at the Jesús María Rancho as a period when there would have been more abundant ground water.

The 1923 map of part of the Jesús María (Map 18) indicates at least 25 springs. Three of these were described as water bearing tracts for Union Sugar camps but were situated on land belonging to Marshall. The tracts were all north of the creek and at the eastern side of the ranch: that for Johnson Camp at survey station 249, that for Camp No. 2 at survey station 213, and that for Union Sugar Headquarters at survey station 204. Union Sugar had the right to take and develop water at these locations for domestic and farm purposes and also the right to fence the boxes installed at the springs or water outlets. At least four water tanks were on the ranch in 1923.



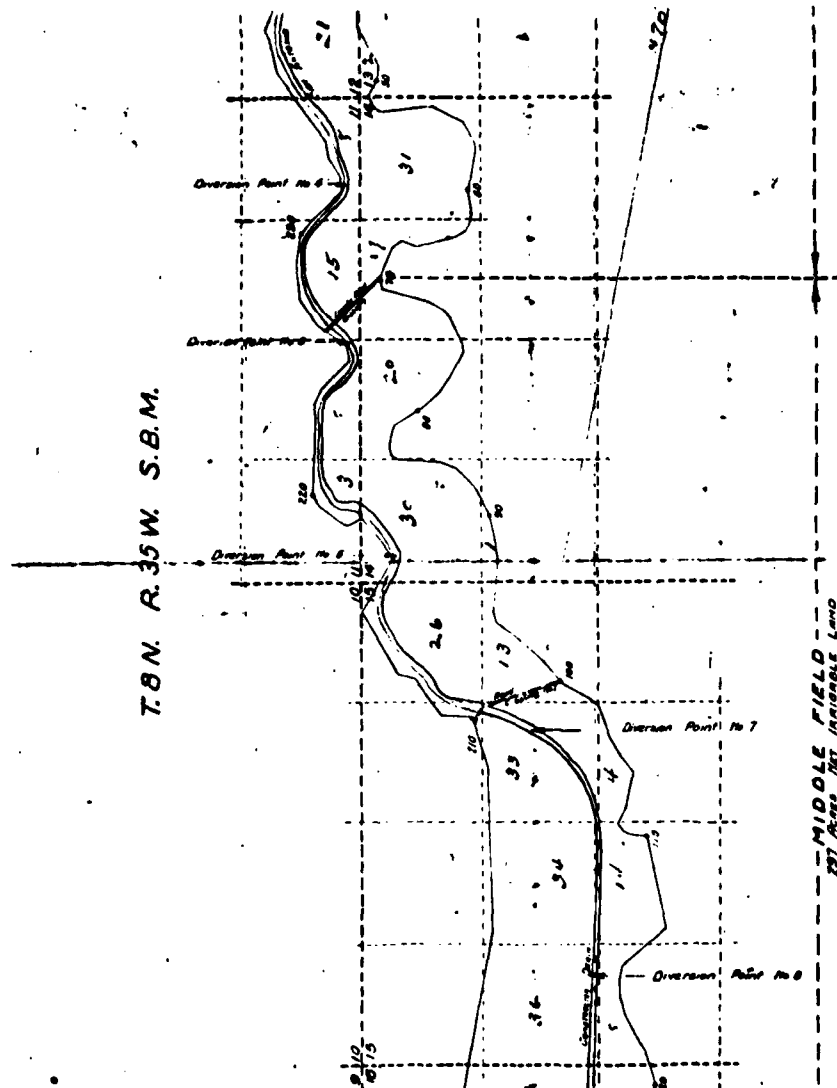
Map 28a. PART I: WATER DIVERSION POINTS, SAN ANTONIO VALLEY
(reduced)



SAN ANTONIO VALLEY RANCH
A PORTION OF THE RANCHO JESUS MARIA
SITUATED IN SANTA BARBARA COUNTY, CAL.
CONTAINING 1011.68 ACRES
PROPERTY OF THE UNION SUGAR CO.

ACCOMPANYING WATER APPROPRIATION
 APPLICATION NO. FILED SEPT 1923
 SURVEYED OCT 1922 AUG 1923
 J.D. Mc GREGOR C.E. BETTERHORN, CAL.
 SCALE 1" = 1000'

Map 28b. PART II: WATER DIVERSION POINTS, SAN ANTONIO VALLEY
 (reduced)



Map 28c. PART III: WATER DIVERSION POINTS, SAN ANTONIO VALLEY
(reduced)

Flora Disturbance and change in the Historical Period

The historical record carries but a sketchy account of the native flora on the Jesús María. In 1769 Fr. Crespi recorded good land, trees, willow, tules, water cress, some rosemary leaved sun roses, unknown shrubs, and a abundance of pasture grass. On his second expedition in May, 1770, he reported on the abundance of flowers: yellow violets, larkspur, flowering poppies, and sage.

La Purísima Mission records refer to a great grainary for seeds at the Rancho San Antonio, and the mission fathers kept records of their harvests of wheat, corn, and beans. When the three Olivera men petitioned for the Jesús María they stated that the land was formerly a part of the Rancho San Antonio. The "huertas" drawn on the diseño, Map 5, may be a clue in locating the earliest farmed areas and these could date back to the mission period.

Greenwell's map published in 1879 had on it sketches of willows on the south side of Shuman's Canyon. South of the willows were chaparral and briar. Little data outside of this exist for the Burton period, but we do know there were hay leases in the late nineteenth century.

Data on introduced flora come from the Marshall period. Interviewee Marshall II recalled that Marshall first introduced eucalyptus trees to the ranch and was responsible for the vast plantings which can be seen on the 1923 map (Map 18) (Interviews, W. Spanne and Marshall II). However, the Union Sugar correspondence lets us know that the company habitually planted the eucalyptus on its own land and on leased land, purchasing them in lots of 10,000 and more or by the carload. Eucalyptus was a common wind break for all of the neighboring ranches. For example, Mrs. George Taylor of Arroyo Grande grew them and charged \$7.50 a thousand. In September of 1910 Manager Atkinson bought 50,000 trees. Some of these could have been for their lease on the Jesus Maria.

Marshall's grain leases show that he required the lessee to plow the land and to plant in oats or barley; he made alternate provisions, however, for them to plant beans and hay. If the lessee planted hay, Marshall had the option of paying him \$3.00 an acre or asking to have 1/4 of all the hay cut delivered to his barns. All produce had to be removed by August 15 from the fields with the exception of beans. Marshall wrote into his grain leases that the lessee could cut no trees or timber of any kind. When Union Sugar leased the valley they cleared the close to 1,000 acres for sugar beets. Manager Atkinson's correspondence in 1910 recites,

We have made arrangements with the baker in Santa Maria to purchase considerable of the willow wood that we will clear from the Jesus Maria Ranch, and we will be able to use considerable of it ourselves at our camp and at the Japanese camps [Atkinson to E.J. Marshall, 10-26-1910].

The sugar beet culture has been covered above; the following statement points to its benefit for the soil. C.O. Townsend, pathologist in charge of sugar problems, Washington D.C., claimed that sugar beets did not deplete the soil and instead had a beneficial effect, i.e., the yield of beets and other crops grown in rotation with the beets increased. The Atkinson correspondence also reveals that the company introduced a grass, Lippia repens, at the Betteravia club house. It came from Rome and may have been planted, as a matter of policy, at the Union Sugar Headquarters on the Jesús María.

When the Southern Pacific Railroad built its road along the coast through the rancho and later constructed the Narlon Spur, they were confronted with the sand problem. According to Valuation Engineer D. Farrar who searched the company files in San Francisco and questioned old timers for this study, an early solution to the problem was plantings of ice plant. These were not extensive. The railroad also used an adobe soil blanket placed on top of certain sand areas to retard erosion (Interview, Farrar; Letter Farrar to Roberts, 3-2-82). In March, 1912, Union Sugar purchased Sea Bent Grass to solve the problem. In April, Assistant Manager McCoy wrote to Marshall at his Los Angeles office the following:

We had the Sea Bent Grass shipped to our headquarters on the Jesus Maria Ranch but the spring was so very dry that we considered it would be a waste of time to plant it, and in this we took the advise of the S.P. [Railroad] people, who have had a great deal of experience in planting this grass. The grass is "heeled" in at our headquarters on the Jesus Maria Ranch, and we will plant it this coming fall or early next spring, as soon as conditions will permit. In the meantime Mr. Purkiss has very carefully covered the right of way with brush in such a way that he believes it will stop all drifting sand [F.J. McCoy to E.J. Marshall, 4-20-12].

In sum, the railroad's sand problem resulted in the introduction of ice plant, of an adobe soil blanket, of Sea Bent Grass, and of the unknown brush Mr. Purkiss used.

Muir (1964) identified three sets of dunes in the lower San Antonio study zone: young, mature, and old. He wrote that while the young dunes migrate and support little or no vegetation, the mature dunes are more or less anchored by vegetation and perfectly preserved. The old dune shapes were poorly preserved, but vegetation also anchored them (Muir 1964:18).

Mustard seed brought excellent prices during world War I when it was used for mustard gas, and bumper crops were produced in the Lompoc area. Although treated as a weed by the ranchers and farmers prior to this time, it may have been cultivated on the Jesús María during the war.

Weed eradication was first documented in the twentieth century when the Marshall grain leases were written. According to the Short lease of 1910 the lessee was to keep the leased premises free from mustard, radish and "all

other injurious plants or weeds" by either pulling them up or destroying them. All seeds to be sown on the premises had to be thoroughly clean and free from weed seed and had to undergo inspection by Marshall's staff before they were sown. All threshing or other machinery had to be entirely free and clean of morning glory or other weeds and of weed seeds. Morning glory received the most attention, and in 1909 the Board of Horticultural Commissioners in Lompoc passed a resolution that no hay could be shipped from ranches having morning-glory on it. Atkinson at Union Sugar outlined the manner of treatment for morning glory they considered a good one:

As our kind of morning-glory is the wild species--perennial and not annual--the morning-glory patches should be staked off at least 10, and if possible 20 feet outside of any showing, and that it be properly treated, first with a spray of Sulphid of Iron. Mix 2 lbs. to a gallon of water, and spray with a Bordeaux nozzle.

That this treatment be followed with a deep-set weed cutter dragged as far below the surface of the ground as possible, and that each subsequent showing of the plant above the surface be similarly treated....

The authorities seem all to agree that weekly treatment with the weed cutter is the surest method of eradicating the pest, and the foreman whom you put in charge of the land, if we buy it, must remember that it takes two years to completely kill it out, and any small pieces that may show thereafter must be most closely watched [Atkinson to Purkiss 9/1/09].

Donahue ("Vandenberg AFB") wrote that in 1957 ice plant ground cover was introduced to alleviate the sand problem.

Dune Influence Generated by the Santa Maria River Flow

Sand dunes are conspicuous features along the coast on Burton Mesa and San Antonio Terrace. On San Antonio Terrace, the dunes are extensive, reaching inland as much as 4 miles and mantling an area of about 12 square miles. They are less extensive on Burton Mesa, where they extend inland only about 1 mile.

A dune condition much like that on the San Antonio Terrace existed at the mouth of the Santa Maria River, as well. It extended south as far as Point Sal and inland almost four miles. According to Arnold and Anderson (1907a), the deposit amassed at the northwest end of the hills and in 1907 was already several hundred feet thick. The sand was drifting about incessantly and was still in the process of collecting since it was being supplied from the long low, open shore to the north. The Casmalia Hills checked the sand from drifting inland in the north, but to the south of the hills the coast was open. The sand was not held back by an inland barrier,

and was continually being carried by the northwest winds into the interior valley. While the lower end of the Santa Maria Valley was largely shut off from the ocean by the large sand dunes, the Santa Maria River had cut through the dune barrier in at least two places. One was at its present outlet to the sea and the other was at the bed of the Osos Flaco Creek. This was a small sluggish creek which followed an old channel of the Santa Maria River.

The flow of the Santa Maria River could influence the degree to which sand in the past was carried out to sea and southward by the ocean, the degree to which this sand supplied the area south of the Casmalia Hills, and the degree to which it was deposited on the beaches south of Lions Head and along the shore of the Jesús María Rancho. There it would influence dune formation in the study zone. With this concept in mind, a summary history of the flood conditions, of controls upon water flow, and of irrigation practices in the Santa Maria basin is included here.

The Santa Maria basin, with a total area of 1,880 square miles, extends about 90 miles east from the Pacific Ocean, averaging about 20 miles in width. The Santa Maria River is formed by the confluence of the Cuyama and Sisquoc Rivers about 20 miles from the coast at Fuglers Point. Suey Creek from the north and Bradley Canyon from the south are the principal tributaries below the confluence of the Cuyama and Sisquoc Rivers. Both the Cuyama River and the Bradley Canyon tributary are considered important sources of silt. A U.S. Forest Service survey in 1942 estimated that it reached 7 million cubic yards in a 25 year period. However, the periodic large discharges of the river, which in themselves caused considerable bank erosion, did not redeposit the silt. No new land was built by the sedimentation of the river and the silt was instead taken to the river mouth and out to sea.

The Corps of Engineers compiled a record of at least 25 damaging floods in the basin over a 128 year period, 1811-1938. Except for the 1909 flood the magnitude of the floods is unknown. Even for the 1909 flood no measurement of river stage or of the discharge was made during the flood. Old timers supplied most of the data the Corps collected as may be seen below:

- | | | |
|------|--------------------------------------|--|
| 1825 | John L. Harris
September, 9, 1937 | "Prior to 1825 the Santa Maria River flowed through the Oso Flaco District. After 1825 the river changed its course to flow into the ocean via Guadalupe." |
| 1862 | John F. Dana
November 21, 1928 | "In 1862 one of the worst floods came. Creeks and river beds widened and the Santa Maria River was a deep lake. The drift or high water mark on the banks of the Santa Maria River was higher than a man's head while on horseback." |

1878	A. F. Fugler September 3, 1937	"During 1878 the Santa Maria and Sisquoc Rivers washed away 20 acres of Francis Fugler's farm land near Fuglers Point.
1884	L. E. Blockman October 4, 1937	"Serious washouts. Scarcely a day without rain that season."
1885	<u>Santa Maria Times</u> November 21, 1885	Washed out Railroad grade.
1890	A. F. Fugler	"Lost another 20 acres at Fuglers Point."
1897	L. J. Morris August 31, 1937	Stated all of his 40 acre farm and half of his leased 80 acre farm washed out.
1909	F. C. Finkle, Consulting Engineer September 3, 1909	"January-March 1909, 1,000 acres of farm land washed away."
1910	War Department Survey	Flood of great magnitude.
1914, 1915, 1927, 1937, and 1938		Bridges washed away in all of those years.

[Reprinted in U.S. Forest Service 1942:8-9]

The 1909 flood generated action both locally and on the part of the state. Santa Barbara County began construction of pile and cable jetties along the Santa Maria River to deflect flood flows from vulnerable sections of the south bank between Fugler's Point and the ocean. From time to time the county constructed new jetties until in 1942 it was estimated that expenditures had run to about \$400,000. A new Reclamation District was formed in the summer of 1909 for the purpose of doing the necessary work of protection to keep the Santa Maria River within its channel. J.W. Atkinson, manager at Union Sugar, wrote to Southern Pacific Railroad and to influential citizens such as Milo D. Tognazzini arranging for the District election of the trustees. The Southern Pacific Railroad did some reclamation work in 1911 to protect the approaches to their Guadalupe Bridge, and in 1916 improvements sponsored by the Reclamation District were made to prevent flooding along the river channel. These improvements consisted of jetties that diverted the flow northward into San Luis Obispo County to form the present channel of the Santa Maria River. North of the city of Santa Maria, the river previously flowed as much as one mile south of its present course. In 1964 some of the 1916 jetties were still in existence (California Department of Water Resources, Water Control in Santa Maria River Valley 1964:18).

In 1930 J. B. Lippincott, a consulting engineer, was engaged by the Santa Barbara County Board of Supervisors to study flood damage along the Santa Maria River and to recommend ways to prevent it. The Corps of Engineers, Los Angeles, completed a survey in 1939 and recommended a levee and channel construction on the river and its tributary, Bradley Canyon (U.S. Forest Service 1942). In 1941 the City of Santa Maria built a ditch below the mouth of Bradley Canyon, and in 1942 earth dams were under construction on the Sisquoc and Cuyama Rivers. The Twitchell Dam and Reservoir on the Cuyama River at the Vaquero site was finally authorized September 3, 1954. The goals of the project were to recharge depleted ground water and to eliminate extensive flood damage.

Land use history of the valley dates back to Mexican grants in 1837 for livestock production. With American occupation in the 1860s, the cattle industry declined and grain and hay production were introduced. By 1900 grain and bean growing occupied all the better lands while fruit remained at a minimum.

Water diverted from the Santa Maria Valley for irrigation purposes began in 1898 when the Union Sugar Company built a flume to transport water from the Sisquoc River. The Southern Pacific Railroad tracks came through the west end of the valley in 1901 providing a fast mode of transportation for crops to market, but diversified agriculture was slow to develop. After 1920 fruit trees in particular were planted and numerous shifts were made in the valley lands from beans and grains to vegetables and flower seed crops. The irrigated area of the valley increased from 10,700 acres in 1922 to 28,000 acres in 1942. Practically all the water was pumped from the underground basin, and by 1942 the annual overdraft was depleting the ground water (U.S. Forest Service 1942:7).

Two water right applications to appropriate unappropriated water from the Cuyama River were filed with the California State Engineer in 1946. These covered diversion and temporary storage of 214,000 cubic feet of water annually from the Cuyama River between October 1 of each year and June 30 of the next year (U.S. Bureau of Reclamation 1958).

DISCUSSION OF SPECIFIC SITES

San Antonio Ranch Buildings

Location: On the west side of a drainage way, $120^{\circ} 29' 36''^E / 34^{\circ} 46' 50''^N$, just west of where the Orcutt Quad sheet shows a tiny pond on the drainage way (Letter, Richard Whitehead to LJR, 7-18-82). The site is about half way between the road to Casmalia and the road due south from Orcutt and on the old Todos Santos y San Antonio Rancho.

Description: Site is now marked by cactus and black greasy soil. Whitehead saw a sign here recently indicating that the area had been used by Camp Cooke for a latrine.

Significance: Reference to the site dates back to La Purísima Mission reports. The 1810 report recited:

The whole area being kept and improved, and there have been made on the R^o San Antonio out buildings for farm hands which is indispensable to its existence, and likewise a great grainary adequate for the seeds. This locality promises to yield [Fr. Mariano Payeras and Fr. Geronimo].

The Jesús María Rancho was, in mission days, a part of the Rancho San Antonio pertaining to the La Purísima Mission. This was its headquarters. William Hartnell petitioned the Mexican government for the Rancho Todos Santos y San Antonio; and the ranch house was drawn in on the diseño he submitted.

Huerta Mateo (Matthew's Garden)

Location: Lompoc Quad. 120° 27' 14"W/34° 43' 43"N. In the first canyon west of the Mission and southeast of the study zone (see Map 14, "Canyon Huerta de Mateo"). Historically it lay on the Camino Real, which passed from Mission Purísima to Rancho San Antonio and on to La Larga.

Description: Whitehead visited this site with Ed Rowe, Chairman of the Park Commission and member of the Mission Advisory Committee, circa 1960. Site was marked by black greasy soil, cactus, and a spring. Whitehead thought he saw a trail from this site to the Mission on the 1928 aerial survey map.

Significance: Mateo grew crops for the mission at this well-watered mission outpost. This agricultural outpost was similar to that of Francisco Reyes's ranch. The Reyes land may have been within the study zone.

Santa Lucia House

Location: Santa Lucia Canyon, see Map 6 and also Map 24, which is a part of Deeds 212, page 104. The accompanying text reads, "Santa Lucia Valley Farm bounded by a meandering fence" (1922).

Description: Not known. The Rochin Adobe, an unrecorded site reported by Larry Spanne (7-29-82), may be related or may be a sheep herder's house. It is among the oak trees off the main road to Vandenberg, just north of the water tanks which serve Vandenberg Village.

Significance: This may have been the location of one of the Olivera adobes mentioned in the California Lands Claim Case 528. In 1854 a witness, Fernando Tico, testified that the Oliveras had two houses. The father and son lived in one and Antonio's cousin Lucas lived in the other. The first houses were built of wood, but they were afterwards built of adobe. The Mexican grant (Jesús María) to the three Olivera men was executed in 1837. In 1841 José Antonio (son) and Antonio Olivera (father) conveyed their two-thirds interest in the ranch to José María Valenzuela. In 1847 Valenzuela sold the two-thirds to two parties: one-third to Pedro C. Carrillo and one-third to Lewis T. Burton. In 1852 Pedro C. Carrillo sold his one-third to Lewis T. Burton, and it was described thusly: "about nine square leagues of land together with houses, appurtenances, and structures and more

especially those certain houses and other structures built and erected on that part of said Rancho of Jesus Maria called Santa Lucia" (Mtg. A-29 and Deeds A-48). We can speculate that upon tracing the chain of title, this was the one-third of the parcel sold by the Oliveras (father and son) in 1841. If so, these were their structures, and among them could have been the original adobe described by Fernando Tico. Schumaker (1877) stopped at the Santa Lucia Rancho where he talked to an intelligent gentleman who held it at rent. He described it as a large estate.

Olivera Adobe Site:

Location: On the south side of a ravine, above a spring and across from CA-SBa-786. When traveling east of Bishop Road past the Tracking Station Buildings, the site is clearly visible to the west.

Description: No evidence of habitation is on the surface of the site. W. Spanne saw stubs of adobe walls here in the 1930s; L. Spanne saw trash in the early 1960s when the Air Force Base still allowed hunting in this area.

Significance: The site lies in Lot 5 of the Rancho Todos Santos (Map 6), that portion owned from 1876 until it was sold to the U.S. Government by Henry Mayo Newhall and, after his death, the Newhall Land and Farming Co. José Olivera built an adobe (30 by 40 feet) there in 1855, believing he was within the juridical boundaries of the Casmalia Ranch. His father, who sold him the land, had lived "a little further down because there was no water there at the time (Superior Court, Case 1290). We can speculate that his father was Antonio Olivera, grantee of the Casmalia Ranch, and that these Oliveras made their home southeast of the ranch where the boundaries were, of course, informal. Both Francisco Olivera, son of Lucas Olivera (grantee of the Jesús María Rancho), and Antonio Olivera (possible grantee of the Casmalia Rancho) were present when the official boundaries were marked off for Hartnell's Todos Santos Rancho in 1841. However, most of this evidence points to the conclusion that the Oliveras made this site their home.

James Olivera (1968-1952), a descendant of the original grantees of the Jesús María, identified an adobe ruin here in the 1930s as the family home and the one in which he had lived (Interview: L. Spanne as told to him by his father W. Spanne, a friend of James Olivera). The archaeologist Schumacher visited the "house of the stock raiser Olivera" in 1876 and mapped the location (Schumacher 1977:54). He located the house at about the same place we find CA-SBa-786 today, and the landforms on his sketch match very well those of the present-day USGS Casmalia Quad (Schumacher 1877 Map 14, Plate 20). We do not know if this house relates to the first grantee's adobe or was a later Olivera home. It is a significant historical landmark, important to local history, and important to the Olivera descendants.

Burton-Marshall Place: Headquarters of Jesus Maria Rancho

Location: About 4 miles from the mouth of the San Antonio Creek and a mile from its right bank. Its location on the Casmalia Quad is labelled "Marshallia."

Description: House, red barn and utility house at former ranch headquarters (See Figure 3). See Figure 4 for house's current floor plan, which reveals that three walls of the building are still of thick adobe. The modernized structure does not reflect the qualities of its historical past. The red barn and utility building appear authentic for the early twentieth century period. There may have been other buildings nearby.

Significance: During the last half of the nineteenth century the Burtons owned the site, but there is no record of their using the adobe. In 1877 Schumacker described the building as "Burton's Place" and as an "old dilapidated deserted adobe house." In back of it, Schumacker saw a small pond and some signs of former Indian huts. The written record tells us nothing more of the adobe until E.J. Marshall bought the northern Jesus Maria. Union Sugar men wrote of meeting Marshall in 1910 at "Marshall's Place." E.J. Marshall II states that Marshall developed his headquarters at this locale and built onto the adobe. Marshall called the combined structure the "Officer's Mess," and he eventually stuccoed the outside to make it into one entity (see text, "Marshall's Ranch, 1906-1922" for more detail). Figure 3 supplies a layout for the ranch headquarters in 1933, drawn from memory by E.J. Marshall II. The structure served as Marshall's residence and guest house and later for a guest house open to the public and then to Army and Air Force personnel.

Although the original structure is hardly extant and the ranch house structure developed by Marshall is radically changed and modernized, the house, the red barn, and the utility building that remain of the old complex serve as a symbol of the Jesús María Rancho.

Bench Mark X

Location: (original) About 5 miles southeast of Narlon on the south side of the San Antonio Valley, 15 feet below a private road, around the base of a hill, known as the Barker Grade, over which the county road from Casmalia to Lompoc passes .

Description: (historical) 3½" pipe, four feet long, and 1½ feet above ground. Elevation 95.412 feet. The original bench mark was reset because it was in the way of Union Sugar agricultural operations when this description was valid in 1911.

Significance: USGS site descriptions contribute to our understanding of local change. This bench mark does not appear on the Greenwell map of 1879, and it was probably erected during the surveys between that time and 1905 as it is on the 1905 Quad. In 1911 when Union Sugar crews requested a description change for it, they claimed that all fences, buildings, and other prominent landmarks, which were present at the time the original bench mark was placed had since disappeared, except at a great distance. This statement

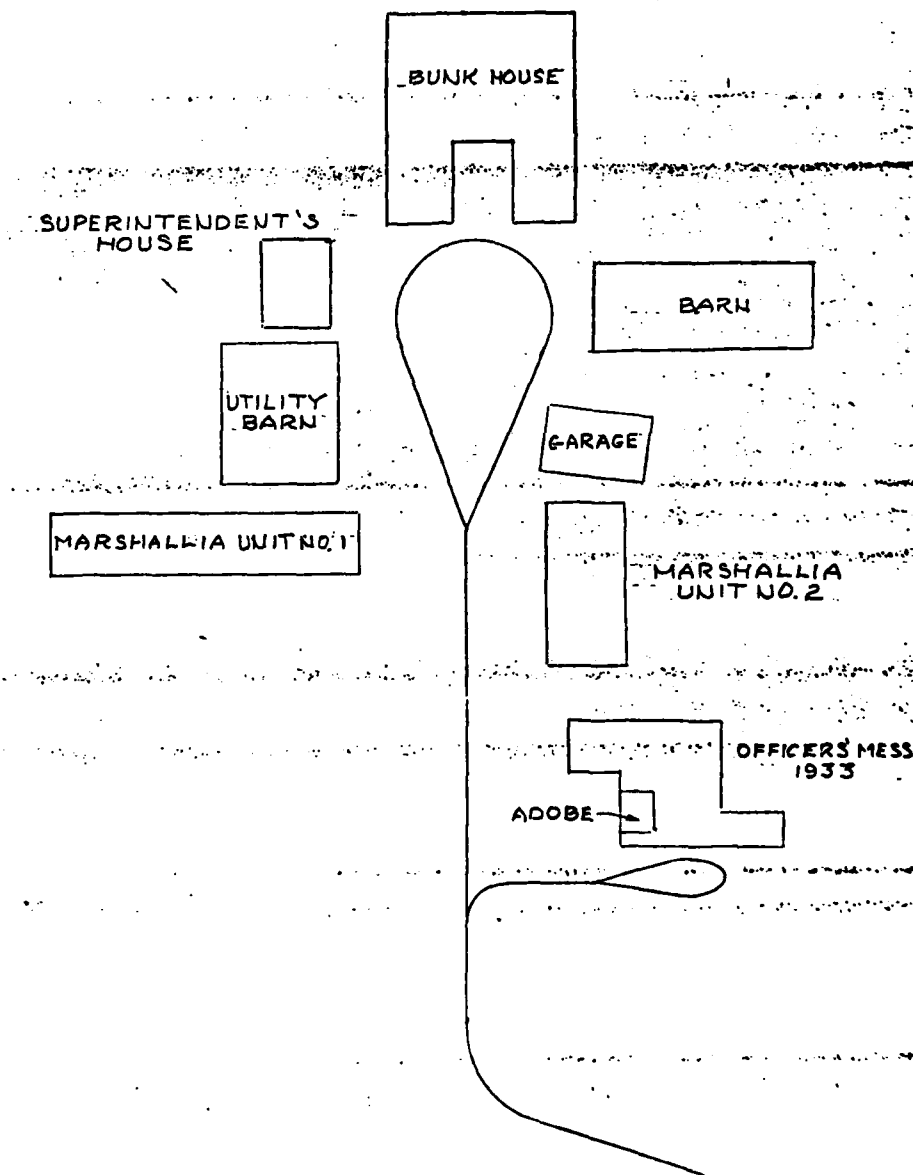


Figure 3. HEADQUARTERS OF RANCHO DE JESUS MARIA,
ca 1933, AS DRAWN BY E.J. MARSHALL II

[illegible]

Figure 4. MARSHALLIA'S CURRENT FLOOR PLAN
(Copied from Donshue n.d.:7.)

is the only record we have of there having been fences or structures of any kind at this locale.

Bench Mark X appears on Map 15 (1923). It appears on the 1947 USGS Quad, but is there located on the county road to Harris. It had been reset and moved about a mile east. By 1959 it had been reset again. That location was provided by the Defense Mapping Agency, VAFB and was briefly stated, 1.7 miles south-southeast of the town of Casmalia. The revised Casmalia Quad (1974) no longer carries this bench mark.

Los Alamos Creek Viaduct

Location: Across mouth of Los Alamos Creek (i.e., San Antonio Creek) on the Southern Pacific right-of-way.

Description: Regulation viaduct with girders.

Significance: Completed sometime between 1866 and 1897, thus permitting the Coast Division Railroad to reach Surf in 1897. The fact that a railroad ran through the Jesus Maria profoundly affected its twentieth century history. Union Sugar found it profitable to develop the San Antonio Creek Valley because they could haul the beets out by train. E.J. Marshall used the railroad to haul in calves from his Mexico ranch for fattening and to haul them out for sale. The viaduct is a permanent reminder of the early importance of the railroad in the study area. It is also a local example of turn-of-the-century viaduct design.

Union Sugar Company Headquarters

Location: 1½ miles south and slightly east of the Marshall Headquarters and north of San Antonio Creek. Gray, the terminus of the Narlon Spur (Map 23), was the Union Sugar loading facility in front of their headquarters. Map 18 displays the survey stations located on the fence along San Antonio Creek. Reference is found in Deeds 212, Page 112, wherein a water bearing tract on the Rancho Jesus Maria belonging to E.J. Marshall was defined since it was to be used by the Union Sugar Headquarters. It read:

Commencing at a point from which Station 204 of the Boundary Line Survey of that certain parcel of land, known as the San Antonio Valley of Rancho Jesus Maria, as described in above description dated 9th October, 1922, bears S. 16° 14' E. a distance of 626.4 feet, thence N. 67° 47' W., a distance of 80.0 feet, thence N. 32° 23' E., a distance of 105.8 feet, thence S. 73° 51' E., a distance of 50.0 feet, thence S. 16° 09' W., a distance of 110.0 feet to the point of beginning.

A second water bearing tract was described in Deeds 212, page 117.

Description: Site was seen from a distance only. VAFB personnel who know the outlying portions of the base well report that no structures remain.

(Interviews: Grosini [retired] and Wolf, Real Estate). The site is close to the creek and is thickly overgrown.

Significance: The site served Union Sugar from 1910 until they abandoned planting in the valley about 1940. Union Sugar employees as well as lessees lived here. Structures once included a house and barn and structures to house equipment (interviews, Rogers, Huyck, Marshall II). The headquarters were often mentioned in Union Sugar correspondence, 1920-1922. The site is important to the local history of the valley.

Johnson Camp (Union Sugar)

Location: On a eucalyptus covered point on the north side of San Antonio Creek 600 feet down hill from Richmond Road. Location coincides with SBa-1019 and -1020. According to the boundary line survey of the Jesús María Ranch (1923) shown by survey stations on Map 18, Survey Station 251 was located in front of the camp. Station 252 was 10 feet southeast of the corner of the barn.

Description: SBa-1019 and -1020 describe present surface features: crockery, glass, farming equipment, Anglo household utensils, and some indication that Oriental people had lived there. A water-bearing tract on the Marshall ranch was located north of the site and described as follows in Deeds 212, page 116:

Commencing at Station 249 of the boundary line survey of that certain parcel of land known as the San Antonio Valley, a portion of the RANCHO JESUS MARIA, as described in above description dated 9th October, 1922, thence N. 36°24' W a distance of 75 feet, thence S. 53°26' W a distance of 28 feet, thence S. 36°24' E. a distance of 75 feet, thence N. 53°36' E. a distance of 28 feet to the point of beginning.

Significance: This camp was, circa 1910-1940, an important Union Sugar farm center for their lease and after 1922 for their own farm strip along San Antonio Creek. Union Sugar had a barn and other structures here. W. Spanne saw a long latrine here for the workers. The Japanese camps were mentioned in the Union Sugar company manager's correspondence; these years were the period of intensive use of Japanese field labor in California. This site is important to ethnic history and to local land use.

Camp 2 (Union Sugar Company)

Location: Northwest of Union Sugar Headquarters about 750 feet, at survey station 213. Deeds 212, page 116 references it to a water bearing tract on the Jesús María Ranch from which it drew water. That description is as follows:

Commencing at a point of the north boundary line survey of that certain parcel of land known as the San Antonio Valley, of the

RANCHO JESUS MARIA, as described in above description dated 9th October, 1922, N. 58°58' E. a distance of 184 feet to Station 213 of said survey, thence N. 31° 02' W. a distance of 400 feet, thence N. 58°58' E. a distance of 160 feet, thence S. 31°02' E. a distance of 400 feet, thence S. 58°58' W. a distance of 160 feet to the point of beginning.

Description: Site was seen from a distance only. VAFB personnel who know the outlying portions of the base well report that no structures remain (interviews: Grosini [retired] Wolf, Real Estate).

Significance: An important feature of the Union Sugar operation, 1910-1940.

Fern Spring Camp

Location: 2.65 miles directly south of the Jesús María Rancho Headquarters on the Burton Mesa.

Description: The camp appears on the Jesús María Rancho map surveyed in 1923 (Map 18). The features indicated are three water tanks, a corral, eucalyptus trees, and a spring. The spring is still shown on the Casmalia 1959 Quad (photo revised 1974). No structures remain today.

Significance: One of the six camps used during the Marshall period (and possibly before) as overnight housing during round-ups and as temporary housing for tenant farmers.

North Mesa Camp

Location: Five miles north of Jesús María Ranch headquarters, west of Rancho Road. When traveling Rancho Road past Fire Station, take the gravel road on left and look to left for green area.

Description: Site is fed by a spring lying to east. Old and new pipes lead to a large (4,000 to 5,000 gallon) round cistern which dates to the Marshall period. A newer rectangular cistern, probably built by the military, lies to the east of the old cistern's location about 100 feet. Fences, new and old, are at the site but the structure formerly here has been removed (interview, Wolf, Real Estate)

Significance: Marshall II recalled that the ranch was so organized that many cattle needed water at one time at this site. This site is on what the Marshall people called the Walker Mesa, and it was heavily grazed. Burton Mesa cattle were brought here to graze as they awaited shipment from Antonio, the railroad loading station to the north. This wait may have been for several days. The ranch always had a large trough here.

In the early years, the Marshall Ranch headquarters depended upon this water source. About a thousand feet to the east there was a 30,000 gallon tank, and a pipe line carried water from it to the headquarters 5 miles away. This site was probably the most important water bearing tract on the ranch.

Juan Pedro Camp

Location: Near the head of Juan Pedro Canyon, the most westerly canyon draining into San Antonio Creek from the south. On the Burton Mesa about four miles east of Purisma Point.

Description: The site was not visited. VAFB personnel who know the area report that there are no structures extant today. Map 18 shows two springs, a cluster of houses, and eucalyptus there in 1923.

Significance: One of six camps important to the Marshall period and possibly prior to that time. Marshall described it as a cluster of shacks for the people at round up time so that they could house themselves overnight and continue the round up in the morning. This could also be temporary housing for a tenant farmer. Grosini, who spent 36 years on the military base, recalled that there was a red barn here in the 1930s, and he was present when Cooke AFB held its dedication ceremonies at this camp (interview, July 29, 1982). This camp was still used by cowhands in the 1940s.

Jap Camp

Location: Map 22 located "Jap Camp" on the north side of San Antonio Creek 1,500 feet west of the head of the old Union Sugar canal. Spanne believes this may be at SBa-983 as he recalls garbage here.

Description: Site seen from a distance. VAFB personnel report that no structures remain.

Significance: Union Sugar depended upon cheap ethnic labor in order to compete in the sugar business. Nation-wide publicity over California's anti-Japanese immigration tactics and the San Francisco School Board segregation decision led to Teddy Roosevelt's Gentleman's Agreement in 1907. Japanese laborers continued to arrive, and thanks to the air-tight Chinese exclusion laws, the Japanese were the prime ethnic group to provide California's agriculturists with cheap labor 1910s-1920s. Union Sugar preferred Chinese, but they had to settle for the Japanese (Union Sugar records). The early "Jap Camp" may have been set up for the experimental plots, as the Union Sugar manager wrote of these "Jap camps" in the plural. This is an important site in the ethnic history of the area.

CA-SBa-1174/-1175

Historic investigation revealed little reliable data on the site to add to that already known to the archaeological team.

Walter Spanne related that he knew the last people to have lived in the frame building (Interview at the site, March 5, 1982); they were Amelia and John Huyck. Amelia is still living, but her poor health prevented an interview. Since she is in her 80s, this would indicate that she lived in the house between 1910 and 1920, perhaps into the 1920s. Spanne, in recalling his fathers remarks, said that Amelia could look out her window to the south and see a family cemetery on the west side of present day Grant Road. One of the Oliveras was buried there. John Grosini (Interview at the site,

July 29, 1982) recalled that he had seen a rock and stone foundation with wood stringers over it in the late 1940s or early 1950s. Both L. Spanne and Grosini looked upon SBa-1174 and -1175 as parts of the same ranch complex, recalling that Grant Road had not always been there. Other Houck/Huyck families lived nearby, e.g., Ruben Houck, who farmed in a canyon south of this site on the Todos Santos Ranch (Interview, July 19, 1982). Springs in the area provided water for farming.

Although the recovered crockery reflects nineteenth century life, earlier occupation should be considered. The canyon the site is located on was designated Francisquita Canyon on the 1889 map (Map 14), and a house is shown on the west side of the canyon. In 1908 the county surveyor, Frank Flournoy, surveyed the Todos Santos Rancho property belonging to Rebecca R. Ord Peshine, which lay between the Jesús María, and Casmalia Ranchos (County Surveyor Historic Maps). The Canada San Francisquita is just east of the Todos Santos-Jesus Maria boundary at survey station No. 17 (Todos Santos). In 1904 the map maker Alfred Poett called it "Cañada de Francisquito." Francisco Reyes, recipient of a Spanish land grant, may have lived in this area in the eighteenth century, and the coincidence of names cannot be overlooked. Reyes could have lived in the area or there could have been an outbuilding of the San Antonio Ranch here. The boundary between the Jesús María and the Todos Santos Ranchos was measured, not surveyed, in the Mexican period.

Table 1. HISTORICAL RESOURCES, SAN ANTONIO TERRACE
(Table 1 presents, in summary form, data on the historic resources of San Antonio Terrace,
and includes recommendations for their management.)

<u>No.</u>	<u>Historical Resource</u>	<u>Location/Predictable Location</u>	<u>Present Condition</u>	<u>Historical Significance</u>	<u>Recommendation</u>
1	San Antonio Rancho Buildings	Orcutt Quadrangle 120°29'36"E/34°46'50"N	Cactus, greasy soil, no structure	Hq. Purisima Mission outlying ranch which included future Jesus Maria Rancho	Archaeological excavation
2	Huerta Mateo (Matthew's Garden)	Lompoc Quadrangle 120°27'14"W/34°43'43"N	Greasy soil, cactus, spring (1960)	Agriculture contributed importantly to mission	Archaeological survey
3	Santa Lucia House	Santa Lucia Canyon, Map 4	Not known	Oliveras of Jesus Maria Rancho may have built first houses here	Archaeological survey
4	Olivera Adobe	South side of ravine across from SBa-786	No surface features	Clearly identified by Olivera descendant in 1830's, family of original grantee, Jesus Maria Rancho	Archaeological survey
5	Burton-Marshall Place: Head-quarters Jesus Maria Rancho	Casmalia Quad. 4 miles east of mouth of San Antonio Creek and 1 mile from right bank	Adobe walls are part of one of three structures	Headquarters of Jesus Maria Rancho	Nominations National Register of Historic Places
6	Bench Mark X	5 miles southeast of Narlon on south side of San Antonio Valley	Reset elsewhere; site only	Early location data contributed to local history	None
7	Los Alamos Creek Viaduct	Across mouth of San Antonio Creek on Southern Pacific right of way	In use	Historic symbol of importance of railroad to local development historic design	Complete California Department of Parks and Recreation (DPR) Form 523

Table 1. HISTORICAL RESOURCES, SAN ANTONIO TERRACE (Continued)

8	Union Sugar Headquarters	1½ miles south and slightly east of Marshallia on Casmalia Quad.	No structures	Center of sugar beet culture 1910-1940	None at present
9	Johnson Camp (Union Sugar)	On eucalyptus covered point on the north side of San Antonio Creek, 600' S. Richmond Road	Farm equipment Anglo and Oriental Evidence	Equipment depot and living quarters for Union Sugar workers (Japanese)	Complete CA DPR Form 523
10	Camp No. 2 (Union Sugar)	About 750' NW of Union Sugar Headquarters at Survey Station 213 on Map 15	No structures	Important adjunct to sugar operation	None at present
11	Fern Spring Camp	On Burton Mesa. 2.65 miles due south of Marshallia on Casmalia Quad.	No structures	Historic site of outlying round-up/tenant farmer temporary housing and water	None at present
12	North Mesa Camp	5 miles north of Marshallia on Casmalia Quad, west of Rancho Road	Fences, 2 cement cisterns, pipes	Historic round-up housing and largest watering place on Jesus Maria Ranch	Complete DPR, Form 523
13	Juan Pedro Camp	Near head of Juan Pedro Canyon on Burton Mesa, Casmalia Quad.	No structures	Historic site of outlying round-up/tenant farmer temporary housing Cooke Air Force Base dedication site	Complete DPR, Form 523
14	Jap Camp	Map 22 north side of San Antonio Creek at CA-SBa-983	Surface trash	Union Sugar labor camp, ethnic history resource	Complete DPR, Form 523

END NOTES

1. Fr. Juan Crespi, "Copia del diario...desde el Puerto de San Diego ...de alcala hasta el de Monterey" in Padre Francisco Pala, Noticias de las Nueva California V. II. (San Francisco: Bosqui y Cia., 1874. See this printing of Crespi's first diary for quotations and data used for this report. See especially pp.151-156 and 234-235. Translations are by writer. For excerpts from Crespi's second expedition journal see Alan Brown, "Translation of the Crespi Journals" (MS 720, Santa Barbara Mission Library Archives).
2. Two other sources consider the original grantee of the Jesus Maria. Both are in conflict with this writer's interpretation of the documents for the claims case held at the Bancroft and the records seen at the Santa Barbara County offices. The other publications bear mention since they have been widely circulated. The first is that of James Olivera (1868-1952) who lived in Lompoc and was well known for his memories of the Olivera family. When James died the Lompoc Record (October 22, 1952) printed an obituary which summarized the essence of James' concept of his family history. According to this account James had recalled that his father, Juan, and his two uncles, Lucas and Diego, owned all the land between Surf and Guadalupe. He claimed that Antonio Olivera was his grandfather. Juan had said that he was born in a small adobe on the Jesus Maria Rancho. He had spent his childhood there and on the old Casmalia Rancho. According to an interview with Walter Spanne, James Olivera told his friend Spanne that the Olivera adobe he knew was across a valley from CA-SBa-786 and on the western extremity of the Todos Santos Rancho. (Site 4) The Los Angeles Times printed a James Olivera story on August 16, 1953. The writers quoted James Olivera as saying that his father Juan was the son of Antonio and the nephew of Lucas Olivera. Lucas Olivera's two brothers, Diego and Antonio, had originally been granted the Guadalupe and Casmalia Ranches. All were men of action who lived by the horse and the gun. Lucas, he recalled, had lost the Jesus Maria because of his inability to read. First he had leased the land, but when the lease was renewed a deed had been placed before Lucas in place of a lease and he had signed it. In this way, according to James, Lucas had signed away his land.

A second source is Marie Northrup, Spanish-Mexican Families of Early California (1976) which offers the following information on the Jesus Maria grant:

Antonio Lucas Maria Olivera. b. 10 October 1780 at Mission San Gabriel, soldier and grantee of Jesus Maria Rancho, 1837.

Both of these sources must be questioned since they differ in fact from the documentary evidence extant for the period under study. The documents show, for example, that Lucas sold his interest in the Jesus Maria Rancho to a Carrillo for a logical selling price as may be seen in the following section. While word of mouth information is valuable, the problems of distortion and change are inherent when a period of a hundred years or more is under consideration.

3. For chain of title and other entries in the Santa Barbara County records concerning Jesus Maria Rancho, Todos Santos y San Antonio Rancho, Casmalia Rancho see Santa Barbara Title Insurance and Trust Company, Plant Records, "Casmalia Rancho," "Todos Santos y San Antonio Rancho," and "Jesus Maria Rancho" hereafter cited as SBTIT. Santa Barbara County Records (SBCR) are abbreviated as follows: Deeds, Book B, Page 20 will appear as Deeds B-20. Miscellaneous will be shortened to Misc. (e.g., Misc. B-20).
4. All data on the Oliveras chain of title and land use during the U.S. period is drawn from Lewis T. Burton et al., Claimants vs United States Claims Commission, Case 528. Transcripts and Proceedings. Hereafter cited as Case 528.
5. According to the Lompoc Record, in 1909 the Packards removed three squatters from their ranch on the south of Jesus Maria in that year.
6. General Correspondence, City Correspondence, Farm Correspondence, Miscellaneous Reports, Farm Books, and Beet Weight Books, 1898-1928; Union Sugar Company Records for the Betteravia Plant 1898-1928, Bancroft Library. Copies of letters used for this report are held by CCP on microfilm. All data on the sugar operation and all correspondence cited in this section of the report or in other sections where the Union Sugar Company is of concern are from the company records.

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 Ullman, Samuel
 Wolf, Jerry
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Camp Cooke Employee
 Assessor-Realtor
 Lompoc Valley Historical Society Curator
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 Camp Cooke Trainee
 Southern Pacific Railroad
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 Master
 Resident and 36-year Military Base Employee
 Southern Pacific Railroad engineer
 Farmer
 Sugar Beet Employee (telephonic)
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 Local Historian
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 Grazing Lessee of Jesus Maria
 Local Archaeologist
 Elderly Informant (father of L. Spanne)
 Directory of Flood Control, Santa Barbara County
 Marshallia Lessee
 Camp Cooke Road Designer
 Vandenberg Air Force Base Real Estate
 Author

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Bureau of Land Management, California State Office, Sacramento,
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Huntington Library, San Marino, California
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La Purisima Mission Archives
Lompoc Public Library
Modern Military Branch, National Archives, Washington, D.C.
Santa Barbara Mission Library Archives
Santa Maria Public Library
Stanford University, Special Collections
University of California, Los Angeles, Special Collections and Water
Resources Library
University of California, Santa Barbara, Map and Special Collections
University of California, Berkeley, Bancroft and Water Resources
Libraries
U.S. Army, Military History Institute, Carlisle Barracks, PA.

Appendix 1
MEXICAN LAND GRANT PETITION, 1837
Bancroft Library

Mexican Land Grant Petition, 1837

Senor Governor

The citizens Lucas Antonio and Jose Antonio Olivera residents of this town before the well known justifications of your Excellency as they best may in Law make representation that needing land in which to be able to dedicate themselves to the interesting branch of agriculture in order to seek by this means a subsistence for large families they apply for aid from the Laws of Colonization petitioning for the place called "Jesus Maria" the corresponding map of which they duly transmit. This land although it has pertained to the Ex mission of "La Purisima" is at this time vacant and in a state to be granted in Colonization. Therefore they earnestly pray your Excellency to be pleased to accede to their petition excusing them for sending this on common paper, there being none of the stamp. Swearing at the same time whatever may be necessary.

(signed) Antonio Olivera

(signed) Lucas Olivera

(signed) Jose Ant^o Olivera

Santa Barbara March 20th 1837

Translation submitted to the California Land Claims Commission in 1851.

Appendix 2

MEXICAN LAND GRANTS ON VANDENBERG AIR FORCE BASE
Prepared by Joseph Donohue for 1STRAD/HO, 1979

MEXICAN LAND GRANTS ON VANDENBERG AIR FORCE BASE

There are seven old Mexican land grants within the boundaries of Vandenberg AFB, but only six contribute any significant land area to Vandenberg's 98,400 acres. All are listed in the order of approximate contribution to the present base.

RANCHO JESUS MARIA (42,184 acres)

(Vandenberg AFB = 40,900 acres)

Granted to LUCAS and ANTONIO OLIVERA on 8 April 1837 by Juan B. Alverada, Mexican Governor of Alta California. After years of litigation over ownership of the grant, it was confirmed to LUIS F. BURTON on 7 September 1871 by President Ulysses S. Grant. It was purchased virtually intact in 1941 for the Army's Camp Cooke, and now constitutes practically all of North Vandenberg.

RANCHO LOMPOC (42,085 acres)

(Vandenberg AFB = 20,000 acres)

Granted to JOAQUIN and JOSE CARRILLO on 15 April 1837 by Governor Alverada. Later confirmed to JOAQUIN CARRILLO, et al., on 3 November 1873 by President Grant. Much of the original grant was purchased by the founders of the temperance community of Lompoc in 1874, and most of the remainder lies within South Vandenberg.

RANCHO PUNTA DE LA CONCEPCION (24,992 acres)

(Vandenberg AFB = 14,900 acres)

Granted to ANASTACIO CARRILLO on 10 May 1837 by Governor Alverada, and confirmed to him on 13 July 1863 by President Abraham Lincoln. Subsequently, the grant divided into two separate ranches, and only RANCHO LA ESPADA, the northern section from Point Arguello to Jalama, was acquired in 1966 to form Vandenberg's southern boundary. It was the only land grant property purchased after Vandenberg AFB was established, but 6,500 acres at Point Arguello had been leased by the Army during World War II.

RANCHO TODOS SANTOS Y SAN ANTONIO (20,772 acres)

(Vandenberg AFB = 13,800 acres)

Granted to W.E.P. HARTNELL on 28 August 1841 by Governor Alverada, and later confirmed to his heirs on 20 December 1876 by President Grant. The parcel purchased in 1941 abuts Rancho Jesus Maria in the extreme northeast section of Vandenberg.

RANCHO CASMALIA (8,841 acres)

(Vandenberg AFB = 6,000 acres)

Granted to ANTONIO OLIVERA on 12 September 1840 by Governor Alverada, and confirmed to him by President Lincoln on 13 July 1863. A coastal strip north of Rancho Jesus Maria, this tract is now part of the Minuteman launch area on North Vandenberg.

RANCHO GUADALUPE (32,408 acres)

(Vandenberg AFB = 2,300 acres)

Granted to DIEGO OLIVERA and T. ARRELLANEZ by Governor Alverada on 21 March 1840, and later confirmed to DIEGO OLIVERA, et al., on 13 June 1866 by President Andrew Johnson. Only a small tract along the coast at Point Sal was acquired by the Army as the northernmost limits of the military installation, and now contains some of the Minuteman launch sites.

RANCHO MISSION DE LA PURISIMA (14,735 acres)

(Vandenberg AFB = 500 acres)

Granted to JOHN TEMPLE on 6 December 1845 by then Governor Pio Pico, but later confirmed to JOSE R. MALO by President Chester A. Arthur on 12 October 1882. Only a very narrow strip along Vandenberg's eastern boundary remains from the original Army purchase of approximately 3,400 acres. Although still owned by the Army, 2,886 acres are being used by the Department of Justice for its Federal Correctional Institution adjacent to Vandenberg where the Army Disciplinary Barracks was located during the Camp Cooke era.

(Prepared by 1STRAD/HO, 1979)

Appendix 3

PACKARD RANCH, LEGAL DESCRIPTION,
Deeds 77, Page 255, Santa Barbara Records
November 23, 1915

This Indenture,

this 10th day of Nov. 1900, A.D. 1900.

between Jose Ferrera and Ferrante Savina Bank, a corporation duly organized and existing under the laws of the State of California, with its principal place of business at the City of Los Angeles, County of Santa Barbara, State of California;

Witnesseth, that the said Jose Ferrera and Ferrante Savina Bank, a corporation duly organized and existing under the laws of the State of California, with its principal place of business at the City of Los Angeles, County of Santa Barbara, State of California,

do hereby certify that the said Ferrante Savina Bank, a corporation duly organized and existing under the laws of the State of California, with its principal place of business at the City of Los Angeles, County of Santa Barbara, State of California, do hereby certify that the said Ferrante Savina Bank, a corporation duly organized and existing under the laws of the State of California, with its principal place of business at the City of Los Angeles, County of Santa Barbara, State of California,

do hereby certify that the said Ferrante Savina Bank, a corporation duly organized and existing under the laws of the State of California, with its principal place of business at the City of Los Angeles, County of Santa Barbara, State of California, do hereby certify that the said Ferrante Savina Bank, a corporation duly organized and existing under the laws of the State of California, with its principal place of business at the City of Los Angeles, County of Santa Barbara, State of California,

do hereby certify that the said Ferrante Savina Bank, a corporation duly organized and existing under the laws of the State of California, with its principal place of business at the City of Los Angeles, County of Santa Barbara, State of California, do hereby certify that the said Ferrante Savina Bank, a corporation duly organized and existing under the laws of the State of California, with its principal place of business at the City of Los Angeles, County of Santa Barbara, State of California,

Together

To Have and to Hold,

This Conveyance,

proceeds after in words and figures as follows, to wit:

For \$10,000

Los Angeles, Cal. Nov. 10, 1900

The year after date, for value received, I promise to pay to the order of Ferrera and Ferrante Savina Bank at its bank in Los Angeles, California, the sum of Ten Thousand and no/100 Dollars with interest at the rate of seven per cent per annum from date until paid, and also seven per cent interest for unpaid fees in case of default on this note. Interest to be paid annually until all of it is paid to bear thereafter the same rate of interest until paid, semi-annually; both principal and interest payable only in U.S. Gold Coins.

Jose Ferrera

By

William Shyvers

(Signed and Sealed)

Appendix 4

INDENTURE BETWEEN UNION OIL COMPANY AND H.S. STEPHENSON

DECEMBER 15, 1906

Deeds 119, Pages 51-59, Santa Barbara County Records

-with

Beginning at a stake at the mouth of Casavalia Creek, being the Northwest corner of the Rancho Jesus Maria, and running thence South 64 degrees 45 minutes East 49 chains and 10 links to the Northeast corner of the said Rancho Jesus Maria, thence South 5 degrees 11 minutes East 307 chains and 10 links to a station; thence North 17 degrees East 2 chains and 10 links to a station in a rock mound at a corner of a fence of the Casavalia's marked "P.P.P.P.", which is claimed to be the Southwest corner of the Rancho Jesus Maria, thence North 70 degrees West 54 chains and 10 links to a redwood stake, marked "3", from which a circle 100 feet in diameter, marked "P.P.P.", bears South 10 degrees 30 minutes East 100 feet distant, thence North 76 degrees 30 minutes West 22 chains and 7 1/2 links to a redwood stake marked "4", from which the East pole of the Jesus Maria house bears North 60 degrees East, the extreme summit of Saca Peak bears South 40 degrees 45 minutes East, and the extreme summit of the Tranquillon Peak bears South 5 degrees 15 minutes West, thence North 10 degrees East 61 chains and 7 1/2 links to a redwood stake marked "5"; thence crossing the mouth of the Purisima South 76 degrees 25 minutes West 102 chains and 30 links to a redwood stake marked "6"; thence North 70 degrees 30 minutes West 14 chains and 10 links to a redwood stake marked "7"; thence North 62 degrees 45 minutes West 64 chains and 14 links to a redwood stake marked "8"; thence North 66 degrees West 14 chains 7 links to a redwood stake marked "9"; thence North 56 degrees 15 minutes West 203 chains and 8 links to a stake at ordinary high water mark of the Pacific Ocean, thence along ordinary high water mark North 10 degrees East 264 chains to the place of beginning.

EXCEPT: The right of way conveyed by H. Dutard to the Southern Pacific Railroad Company, by deed dated November 20th, 1890, and recorded in Book 57 of Records at page 32 in the County Recorder's office of said County of Santa Barbara.

The land hereby described and conveyed contains 12,000 acres more or less.

SACROSANCT PARCEL: All that portion of the Casavalia Rancho patented by the United States to Antonio Olivera on July 30th, 1853, which is described as follows, to-wit:

Beginning at the mouth of the Casavalia Creek at high water mark of the Pacific Ocean at a large mound of rocks, running thence along the Northerly line of the Rancho Jesus Maria, as patented, South 64 degrees 45 minutes East 291 chains and 50 links to a large stone marked "J.M.C.P.M.", from which a locust ^{tree} 3 inches in diameter bears East 20 links distant marked "P.P.P.P." on the East side of the road, thence bearing North 6 degrees East 32 chains and 40 links to a large stone marked "P.O. Pointe" South of Casavalia Creek near the mouth of a gulch coming from the Northwest (the old willow tree marked by Merrill bears East about 15 feet); thence ascending the ridge between the gulches Casavalia North 26 degrees 15 minutes West, 116 chains 20 links to a mound of rocks five feet high; thence continuing along said ridge and running principally to the East of the summit of the same North 32 degrees 15 minutes West 24 chains and 10 links to a live oak tree on the North line of the Casavalia Rancho, called for in the patent of said Rancho, thence South 63 degrees 23 minutes East along the common line between the Casavalia and Lindero Ranchos 183 chains and 20 links to a point Merrite (upon the highest point of the Merrite there is a large stake placed to the East of a large rock); thence along high water mark of the Pacific Ocean South 70 degrees East 24 chains, thence along high water mark South 42 degrees East 30 chains, thence along high water mark South 10 degrees East 10 chains, thence along high water mark South 7 degrees 45 minutes East 10 chains, thence along high water mark South 60 degrees 30 minutes East 17 chains, thence along high water mark South 6 degrees 45 minutes East 10 chains, thence along high water mark South 10 degrees East 10 chains, thence along high water mark South 15 degrees East 10 chains, thence along



those certain pieces or parcels thereof conveyed by the following described deeds, to-wit:

(a) Deed by Lewis T. Burton to the Lompoc Valley Land Company, dated October 10th, 1877, and recorded in Book "R" of Deeds at page 627, et seq., in the Office of said County Recorder.

(b) Deed by J. Ben Burton to C. W. Merritt and H. J. Lauthlin, dated July 14th, 1880, and recorded in Book 5 of Deeds at page 539, et seq., in the office of said County Recorder.

(c) Deed by J. B. Burton to California Steamship Company, a corporation, dated 17th April, 1889, and recorded in Book 24 of Deeds at page 292, et seq., in the office of the County Recorder of said County.

(d) Deed by J. B. Burton to Albert Packard, dated September 11th, 1889, and recorded in Book 25 of Deeds at page 414, et seq., in the Office of the said County Recorder.

(e) Deed by J. Ben Burton to John H. Wise and Thomas Dennigan, dated November 17th, 1891, and recorded in Book 32 of Deeds at page 189, et seq., in the office of said County Recorder, conveying two certain parcels of land, together comprising 41.74 acres.

(f) Certain strips or parcels of land heretofore conveyed by Stella F. Burton, or her predecessors in interest, to the Southern Pacific Railroad Company for rights of way for railroad purposes, and to the County of Santa Barbara for road purposes.

The portion of said "Rancho Jesus Maria" remaining after the above mentioned exceptions, and hereby conveyed, containing twenty-one thousand (21,000) acres of land, more or less.

(2) The second parcel, composing, with the foregoing, the said Ben Burton Tract, is a part of the Rancho La Purisima, contains 139.54 acres of land, and has for its Western boundary line the eastern boundary line of the said 21,000 acre tract of the Rancho Jesus Maria, and being that tract or parcel of land described in and conveyed by a certain deed made and executed by John H. Wise and Thomas Dennigan to J. Ben Burton, dated 17 November, 1891, and recorded in Book 32 of Deeds, at page 421, et seq., in the office of the said County Recorder of Santa Barbara County.

And Also all the lands and interests in lands situate within the limits of the said Rancho Casmalia, the said Rancho Guadalupe, and the said Rancho Jesus Maria, owned by H. T. Rutard, deceased, at the time of his death, whether the said lands or interests in land have been or have not been heretofore specifically described.

And Also all the lands and interests in land, situate within the limits of the said Rancho Jesus Maria and the said Rancho La Purisima, which were acquired by H. T. Rudisill, by deed executed to him by Stella F. Burton, dated 28 Jan'y, 1903, and recorded in the office of the County Recorder of said County of Santa Barbara, in Book 86 of Deeds, at page 544, and which passed to the party of the first part herein by deed executed to it by said Rudisill, dated 13 March, 1903, and recorded in said County Recorder's Office, in Book 89 of Deeds, at page 200, whether the said lands or interests in lands have been or have not been hereinbefore specifically described.

✓ TOGETHER with all and singular the tenements, hereditaments and appurtenances thereto belonging or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof.

Subject, however, so far as concerns the First, Second and Third parcels, heretofore described as being situate respectively in the Rancho Jesus Maria, the Rancho Casmalia, and the Rancho Guadalupe, to a certain mortgage made by the Union Oil Company of California to German Savings & Loan Society, to secure the sum of One Hundred and Ten Thousand Dollars with interest at eight per cent. per annum, bearing date the 12th day of December, A.D. 1902.

...of said ... of said ...
... in installments at the times and in the manner ...
... in said ... and in a promissory note of even date therewith ...
... that the whole of said principal sum of one hundred and ...
... dollars, together with said interest thereon from the 15th day of June, 1906, ...
... unpaid. And Grantor, also so far as concerns the Fourth Parcel hereinbefore described ...
... as the Ben Burton Tract, to a certain deed of trust, made by the said Union Oil ...
... Company of California to John Lloyd and George Joumy, trustees for the German Savings and ...
... Society, bearing date the 24th day of January, A.D. 1906, and recorded in the said ...
... Recorder's office, in Book 100 of Leads, at page 387, and given to secure the said ...
... Fifty Thousand Dollars and interest at the rate of seven and one-half per cent. per ...
... and payable in installments at the times and in the manner, and subject to the ...
... in said deed of trust and in the promissory note of even date therewith set forth ...
... Grantor understood that, at the date of this instrument, there remained unpaid \$40,000 of ...
... said principal, together with interest thereon from the 15th day of January, 1906. And ...
... said party of the second part hereby assumes, and covenants and agrees to pay as a ...
... of the consideration expressed in this deed, the whole of the indebtedness above ...
... according to the terms and conditions of the respective notes by which it is evidenced, ...
... and of the said mortgage and the said trust deed securing the same.
The grantor herein, said Union Oil Company of California, party of the first part ...
... hereby excepts from the operation of this grant, and reserves unto itself, its ...
... successors and assigns, forever, the ownership in fee of, and the full, free, exclusive ...
... right to, all coal, lignite, coal oil petroleum, naphtha, asphaltum, kerosene, ...
... natural gas, and all other hydrocarbon, and like substances, which now exist or which ...
... hereafter may exist upon, in or under all of the lands herein described, and every ...
... part and parcel thereof; and also the perpetual right, privilege and easement for said ...
... grantor, its successors and assigns, and its and their servants and workmen, to enter in ...
... upon all the said lands, and every part and parcel thereof, in such manner, and with ...
... horse and other draft animals, cars, wagons and other carriages, machinery, engines, ...
... tools, pipe and materials and supplies as may be proper, necessary or usual for the exercise ...
... of the rights herein reserved; and also the sole, exclusive and perpetual right, or any ...
... said land, and every part and parcel thereof, to explore, dig, mine and drill for all ...
... any of the substances hereinbefore mentioned; and also the perpetual right to erect upon ...
... certain buildings, derricks, tanks and other structures upon said lands, and every part ...
... parcel thereof, usual, proper or necessary to extract, sever or remove all or any of ...
... said substances from all the said lands, and every part and parcel thereof; and also the ...
... sole, exclusive and perpetual right to collect, save ^{store} and handle for market, in and upon ...
... of said lands, and every part and parcel thereof, all or any of said substances, and ...
... and the sole, exclusive and perpetual right to take and remove all of said substances, ...
... of them, from all of said lands, and every part and parcel thereof, for the sole use, ...
... exclusive use, benefit and behoof of said grantor, its successors and assigns, and also ...
... a full, unrestricted and perpetual right of ingress to and egress from all of said lands, ...
... and every part and parcel thereof, at all reasonable and proper places; and also all rights ...
... of way upon and over all of said lands, and every part and parcel thereof, for the purpose ...
... herein provided, convenient or necessary for the exercise of the rights hereby excepted or ...
... reserved, and also perpetual, reasonable rights of way upon, across and over all of said ...
... lands, and every part and parcel thereof, for telephone lines and telegraph lines, for

such use only, however, as may be incidental to the operations herein set forth, of the said grantor, its successors or assigns; and also perpetual, reasonable rights of way, upon, across and over all of said lands, and every part and parcel thereof, for pipe lines for conveying to, over and from all of said lands, and every part and parcel thereof, oil, gas or water, or either of them, and other kindred substances, or any of them, wherever said oil, gas, water or other kindred substances may be produced; and also perpetual, convenient and reasonable rights of location upon all of said lands, and every part and parcel thereof, for wells, derricks, rigs, hoisting works, tanks, pumps, engines and other necessary machinery, materials and supplies, and for houses, work-shops, private wharves, pumping stations, and such other buildings and structures as may be necessary, convenient or proper for the exercise of the rights hereby excepted or reserved, or any of them, subject, however, to the stipulations hereinafter set forth concerning said locations; it being understood, however, that all pipe lines constructed upon the cultivable portions of said lands, for the purpose of any of the uses hereby authorized, or for the conveyance of any of the substances hereby excepted or reserved, shall be buried and kept buried in the soil to such a depth as shall not interfere with its cultivation; and that said pipe lines and telephone lines and telegraph lines shall always be so maintained and operated as not to improperly interfere with, or obstruct the cultivation of, the land upon which they are laid or constructed, or the use of said land for livestock purposes, or the passage over said land of persons or livestock.

ALSO reserving unto the said grantor, Union Oil Company of California, its successors and assigns, forever, the perpetual right to have and receive from said grantee and to use so much of the water now or hereafter flowing or existing in, under, or upon said lands, and every part and parcel thereof, as may be necessary in the carrying on by said grantor, its successors or assigns, of said business of developing, producing and transporting the substances, or any of them, excepted and reserved from the operations of this deed, but only after said grantee, his heirs, executors or assigns, shall have first supplied his or their reasonable uses and needs from such waters for livestock and domestic use on said lands, but before he or they shall use said waters for irrigation, or for purposes other than such domestic use and watering of livestock on said lands; and the perpetual right to develop, take and use the water not yet developed, for the purposes and in carrying on by said grantor, its successors or assigns, of said business of developing, producing and transporting said substances, or any of them; it being understood that all water to be developed by said party of the first part, or its successors in interest, may be used by it or them so far as necessary in the carrying on by it or them of the said business, and that all of said developed waters in excess of said amount needed for carrying on said business shall belong to and inure to the benefit and use of the grantee herein, his heirs, executors and assigns, forever; and it being further understood that all expenses of the development and transportation of said waters so used by said grantor, shall be borne exclusively by said grantor; and it being further understood that should said grantor, Union Oil Company of California, its successors or assigns, sink any well which shall be a water well and shall desire to abandon the same and pull or remove the pipe or casing therefrom, said grantee, his heirs, executors, administrators or assigns, shall have the right to require the pipe or casing to be left, and thereafter to make exclusive use of the water from such well upon paying to the said grantor, Union Oil Company of California, its successors or assigns, the market value of the pipe or casing in such well within thirty days after written notice from the said grantor, its successors or assigns, requiring such payment. If the

shall be the responsibility of the grantor for any damage to the surface of the land caused by the operations of the grantor, its successors or assigns, provided with regard to the application of damages to the improvements and crops on said lands, occasioned by the carrying on of the business of mining and mining operations hereinafter mentioned.

It is, however, understood and agreed, and shall be a covenant herein running with the land, that the grantor, its successors and assigns, shall not, on or through the grantor, its successors or assigns, that is to say, any person or persons, or corporation or corporations, of right exercising the rights excepted and reserved, will pay to said grantee, his heirs, executors, administrators, or assigns, for any and all damage that may be caused to any of his improvements now located upon or that may be placed upon said lands, or any part or parcel thereof, or to any growing crops thereon, or to the surface of the land itself, as a result of the operations of said grantor, or person or persons, or corporation or corporations, in developing, producing and transporting said substances, or any of them, on or said land, or any part or parcel thereof, and shall also pay the said grantee, his heirs, executors, administrators, or assigns, the actual damage accruing to him by reason of the loss of the use, occupation and possession of any surface land which is practically appropriated by said grantor, its successors or assigns to or as a part of a purpose which excludes said grantee, his heirs, executors, administrators, or assigns, from the use of the surface of the soil for the purposes for which the same are reserved, other than exercising said rights excepted and reserved herein), by reason of the operations in developing, producing, conveying and storing said substances, or any of them, on said lands, or any part or parcel thereof; the said last named damages to be paid annually, on the first day of January of each and every year hereafter, for each parcel occupied.

It is further provided that said damage to improvements, crops or surface, and actual damage for loss of occupation, shall in all cases, if the parties interested do not agree thereon, be fixed by two appraisers, one of whom is to be selected in writing by said grantor, its successors or assigns, and the other to be selected in writing by said grantee, his heirs, executors, administrators or assigns, and if the two thus selected cannot agree within thirty days after their appointment, they shall select in writing a third appraiser, and the written appraisal by a majority of said appraisers shall be final and binding upon all the parties interested.

It is further agreed that the grantor, its successors or assigns, may surrender to said grantee, his heirs, executors, administrators or assigns, the possession of any parcel of the surface land occupied as above provided, as a site for either the location of its wells, or buildings, or plant, or other improvements, upon giving notice in writing of its intention so to do to the grantee, his heirs, executors, administrators or assigns, thereby removing from such parcel all buildings, structures and plants, and restoring as far as practicable the surface of such land to its normal condition, provided, however, that in case of such surrender and removal the grantor, its successors or assigns, shall not be required to remove the casing of oil wells, but the same properly plugged and protected by surrounding walls of timber, stone, or other appropriate material, may remain on and in said land at the will of the grantor, it being understood and agreed that such surrender or removal from any parcel of the surface of the land shall in no wise affect or alter the right of the grantor, its successors or assigns, to re-enter such parcel and again take the full possession thereof at any or their pleasure, in the manner and subject to the covenants hereinbefore provided, and in all respects as if it or they had never before entered

Also reserving unto the said grantor, the Union Oil Company of California, its successors or assigns, forever, the perpetual right to take from said lands, or any part or parcel thereof, such stone, rock, chalk rock, sand and clay, or any such substances as may be necessary in carrying on its or their business of developing, producing, storing and transporting oil.

IT IS understood that all of the rights herein excepted and reserved to the said grantor, its successors and assigns, shall be so exercised by it or them as not to produce any unnecessary or wanton injury or molestation to the said grantee, his heirs, executors, administrators or assigns.

IT IS understood that all the lands herein described shall be treated and considered as one parcel of land, in construing the provisions herein contained, in reference to the rights, privileges, easements, servitudes, and other property hereinbefore excepted and reserved unto the grantor, Union Oil Company of California, its successors and assigns.

IT IS understood that each and all of the reservations, stipulations, provisions and conditions herein contained, in favor of said grantor, the Union Oil Company of California, shall inure to the benefit of its successors and assigns, forever, and shall bind the heirs, executors, administrators or assigns of the grantee, H. S. Stephenson, forever; and, on the other hand, each of the reservations, stipulations, provisions and conditions herein contained, in favor of said grantee, H. S. Stephenson, shall inure to the benefit of his heirs, executors, administrators or assigns, forever, and shall bind the successors and assigns of said grantor, the Union Oil Company of California, forever.

IN WITNESS WHEREOF, the said Union Oil Company of California, a corporation, party of the first part, hath hereunto caused to be set its corporate name and its corporate seal to be hereunto affixed, by its president and its secretary, thereunto by resolution of its Board of Directors duly authorized, and the said party of the second part hath hereunto set his hand and seal. Executed in duplicate on the day and year first above written.

(Corporate Seal of
Union Oil Company of California)

UNION OIL COMPANY OF CALIFORNIA,
By Lyman Stewart President.
By Giles Kellogg Secretary.
H. S. Stephenson (Seal)

STATE OF CALIFORNIA, }
County of Los Angeles. } ss.

On this 5th day of February in the year of our Lord one thousand nine hundred and seven, before me, E. S. Dossan, a Notary Public in and for said County of Los Angeles, State of California, residing therein, duly commissioned and sworn, personally appeared Lyman Stewart, known to me to be the President, and Giles Kellogg, known to me to be the Secretary, of the Union Oil Company of California, the corporation described in and that executed the within instrument, each known to me to be the person who executed the within instrument on behalf of the corporation therein named, and severally acknowledged to me that such corporation executed the same.

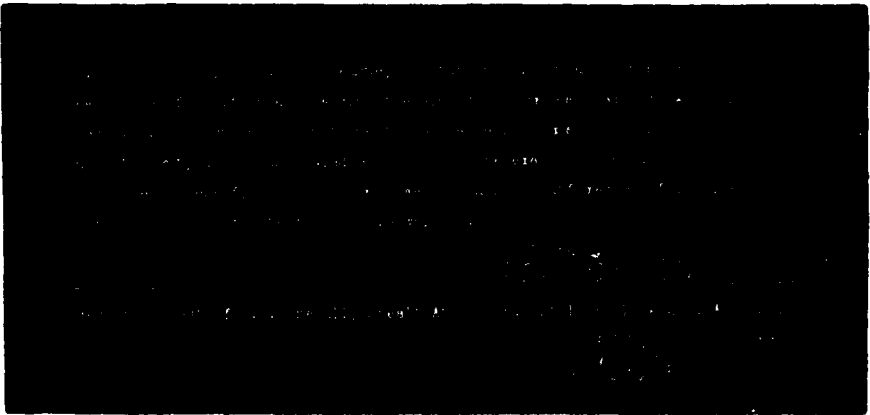
In Witness Whereof, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(Notarial Seal)

E. S. Dossan
Notary Public in and for the County of
Los Angeles, State of California.

STATE OF CALIFORNIA, }
County of Los Angeles. } ss.

On this 4th day of February in the year of our Lord one thousand nine hundred



Appendix 5

UNION SUGAR COMPANY, COMPLETE STATEMENT OF LAND OWNED
MARCH 12, 1913

Union Sugar Records, Bancroft Library

MARCH 12, 1913.

COMPLETE STATEMENT OF LAND OWNED.

TRACT	Total Acres	Best Acreage	Non- Best	COST
TERAVIA RANCH:				
Electric Purchase	4169.00	566.00	3603.00	\$189,109.20
same "	150.00	150.00		17,228.50
ARALIFE RANCH:				
Netti Nat. Par.	1443.71	974.71	469.00	138,000.00
Bonetti "	1514.29	300.00	1214.29	60,000.00
Richings Par.	81.00	81.00		24,300.00
Moore "	2.50		2.55 Rt. of Way	637.50
Johnson "	.57		.57 " " "	200.00
MAN RANCH:				
Ice-Triplett Par.	7.17		7.17 " " "	
Irvine Purchase	146.24	146.24		42,000.00
FLACO RANCH:				
J. Sousa Par.	277.42	256.42	22.00	53,879.12
de-Asavede "	120.00	115.00	5.00	32,723.41
Leale & Bessie P.	419.40	250.00	169.40	52,348.09
Margenti Par.	1288.10	800.00	488.10	193,175.00
J. Sousa "	160.68	150.68		50,000.00
Masini "	79.20	79.20		30,000.00
D. Martins "	150.00	125.00	25.00	48,473.00
Aguita Pk. Assoc.	176.86		176.86 Water Rt.	3,391.30
Prinoni Option	782.47	600.00	182.47 \$112,870.50- option.	
IPCO RANCH, as per detailed statement attached:				
	1912.15	1026.11	886.04	193,541.42
SMALL PURCHASES, as per detailed statement attached:				
	1676.75		1676.75	---
Diveros Water Rt.				5,000.00
L. Nicholson Par.	2.44		2.44 Rt. of Way	400.00
L. Nicholson "	1.00		1.00 " " "	160.00
TOTALS	14627.97	5629.33	8998.64	\$1,131,460.54

S U M M A R Y

	Total	Best	Non-Best
Land Owned by U. S. Co., as above:	14,627.97	5,629.33	8,998.64
Land Leased by U. S. Co.	10,608.75	9,545.21	1,063.54
Total - - -	25,236.75	12,174.54	13,062.21

REMARKS: On the Bonetti Purchases we will have approximately 1275 acres of best land. Considerable of this land has been reclaimed, but some more reclamation will be necessary to bring the whole 75 acres under cultivation. Our engineer is working up the proposition, and definite figures are not yet available, but it will probably cost approximately \$12,000.00 to \$15,000.00.

Appendix 6

INDENTURE BETWEEN CASMALIA RANCH AND CATTLE COMPANY
AND UNION SUGAR COMPANY
October 30, 1922, Deeds 212, Pages 106-119,
Santa Barbara County Records

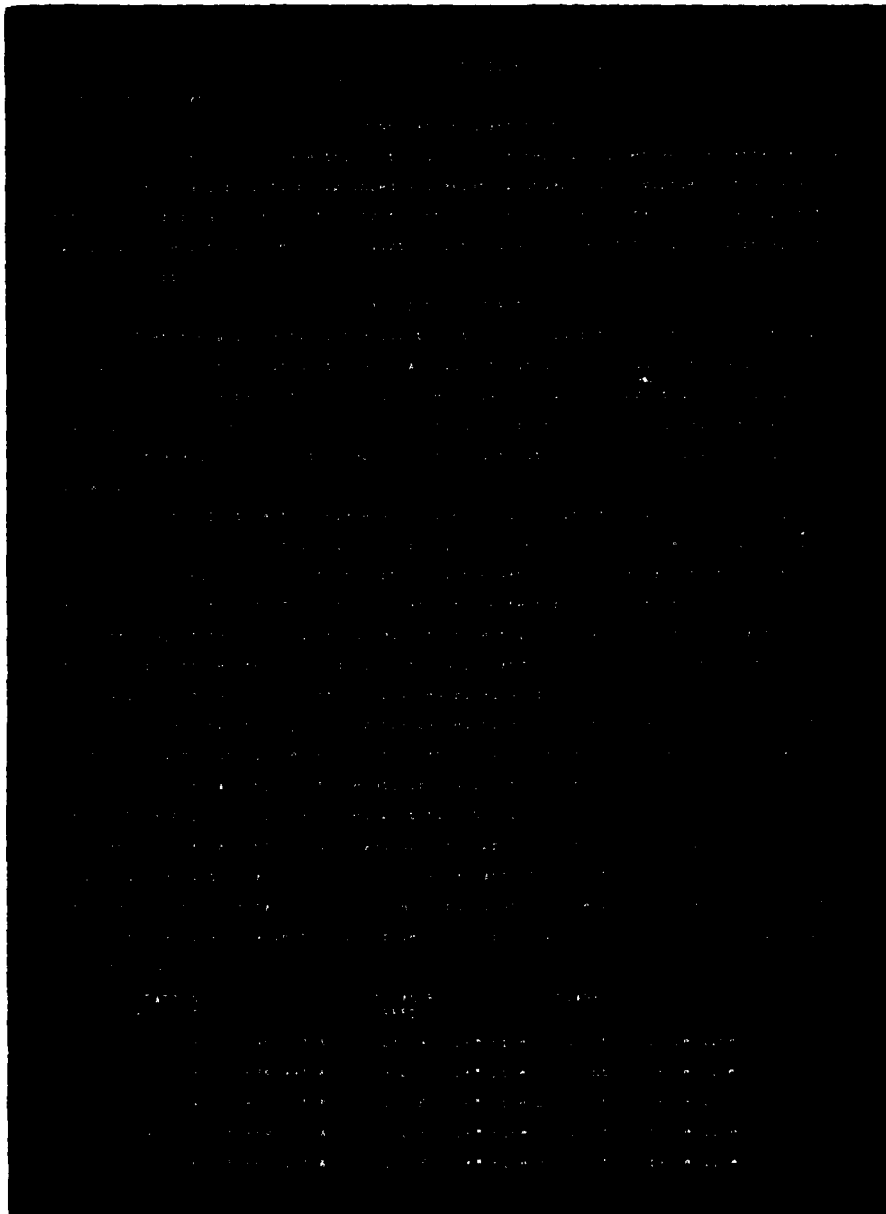


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5	1/1/54	10:20	1020
6	1/1/54	10:25	1025
7	1/1/54	10:30	1030
8	1/1/54	10:35	1035
9	1/1/54	10:40	1040
10	1/1/54	10:45	1045
11	1/1/54	10:50	1050
12	1/1/54	10:55	1055
13	1/1/54	11:00	1100
14	1/1/54	11:05	1105
15	1/1/54	11:10	1110
16	1/1/54	11:15	1115
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18	1/1/54	11:25	1125
19	1/1/54	11:30	1130
20	1/1/54	11:35	1135
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25	1/1/54	12:00	1200
26	1/1/54	12:05	1205
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28	1/1/54	12:15	1215
29	1/1/54	12:20	1220
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34	1/1/54	12:45	1245
35	1/1/54	12:50	1250
36	1/1/54	12:55	1255
37	1/1/54	13:00	1300

TABLE NO.	DATE	TIME	LOCATION
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44	1/1/54	13:35	1335
45	1/1/54	13:40	1340
46	1/1/54	13:45	1345
47	1/1/54	13:50	1350
48	1/1/54	13:55	1355
49	1/1/54	14:00	1400
50	1/1/54	14:05	1405
51	1/1/54	14:10	1410
52	1/1/54	14:15	1415
53	1/1/54	14:20	1420
54	1/1/54	14:25	1425
55	1/1/54	14:30	1430
56	1/1/54	14:35	1435
57	1/1/54	14:40	1440
58	1/1/54	14:45	1445
59	1/1/54	14:50	1450
60	1/1/54	14:55	1455

48	49	S 71° 10' W	106.3	2" Tube	fence line.
49	50	100.0	2" Tube	" "	
50	51	171.0	2" Tube	" "	
				(around of rocks)	
51	52	114.8	2" Tube	" "	
52	53	80.0	2" Pipe Mon.	" "	
53	54	55.8	2" Pipe Mon.	" "	
54	55	144.7	2" Tube	" "	
55	56	170.1	2" Tube	" "	
56	57	144.8	2" Tube	" "	
57	58	174.2	2" Tube	" "	
58	59	115.6	2" Pipe Mon.	" "	
59	60	47.1	2" Pipe Mon.	" "	
				(Add fence leave fence cutting across with a tieback and connecting with line in the following course.)	
60	61	102.1	2" Tube	fence line.	

TATUM		S. M. T.		S. M. T.		S. M. T.	
61	62	N 44° 40' W	104.4	2" Tube	fence line		
62	63	N 70° 01' W	134.2	2" Pipe Mon.	" "		
63	64	N 24° 10' E	100.3	2" Tube	" "		
64	65	N 40° 34' W	100.0	2" Tube	" "		
65	66	N 30° 41' E	81.6	2" Pipe Mon.	" "		
66	67	N 44° 10' W	173.8	2" Tube	" "		
67	68	N 40° 30' W	125.0	2" Pipe Mon.	" "		
68	69	N 60° 43' W	263.2	2" Tube	" "		
69	70	N 77° 53' W	120.1	2" Tube	" "		
70	71	N 12° 51' W	84.3	2" Pipe Mon.	" "		
71	72	N 40° 31' W	557.0	2" Pipe Mon.	" "		
72	73	N 64° 14' W	194.0	2" Tube	" "		
73	74	N 44° 34' W	103.3	2" Tube	" "		
74	75	S 60° 11' W	340.0	2" Pipe Mon.	" "		
75	76	N 64° 04' W	83.5	2" Tube	" "		
76	77	N 60° 24' W	103.4	2" Tube	" "		
77	78	N 30° 34' W	140.4	2" Pipe Mon.	" "		
78	79	N 50° 18' W	106.3	2" Tube	" "		
79	80	N 44° 33' W	304.5	2" Pipe Mon.	on fence line east of Barker's lake and thence continuing along northern edge of creek, around Barker's lake Point.		
80	81	N 24° 11' W	310.1	2" Tube	at north edge of creek		
81	82	N 40° 51' W	117.5	2" Pipe Mon.	at north edge of creek		
82	83	N 30° 10' W	153.0	2" Pipe Mon.	at north edge of creek		
83	84	S 80° 03' W	94.7	2" Tube	at north edge of creek		
84	85	S 40° 10' W	144.7	2" Tube	at north edge of creek		
85	86	N 60° 24' W	176.8	2" Pipe Mon.	at north edge of creek		
86	87	N 30° 11' W	314.0	2" Pipe Mon.	on fence line and thence continuing along present fence line.		

STATION	TIME	REMARKS
100-101	0 279 207 K	0 279 207 K
101-102	0 429 101 N	0 429 101 N
102-103	0 719 511 N	0 719 511 N
103-104	0 819 311 W	0 819 311 W
104-105	0 919 211 A	0 919 211 A
105-106	1 019 111 A	1 019 111 A
106-107	1 119 111 A	1 119 111 A
107-108	1 219 111 A	1 219 111 A
108-109	1 319 111 A	1 319 111 A
109-110	1 419 111 A	1 419 111 A
110-111	1 519 111 A	1 519 111 A
111-112	2 019 111 A	2 019 111 A
112-113	2 119 111 A	2 119 111 A
113-114	2 219 111 A	2 219 111 A
114-115	2 319 111 A	2 319 111 A
115-116	2 419 111 A	2 419 111 A
116-117	2 519 111 A	2 519 111 A
117-118	3 019 111 A	3 019 111 A
118-119	3 119 111 A	3 119 111 A
119-120	3 219 111 A	3 219 111 A
120-121	3 319 111 A	3 319 111 A
121-122	3 419 111 A	3 419 111 A
122-123	3 519 111 A	3 519 111 A
123-124	4 019 111 A	4 019 111 A
124-125	4 119 111 A	4 119 111 A
125-126	4 219 111 A	4 219 111 A
126-127	4 319 111 A	4 319 111 A
127-128	4 419 111 A	4 419 111 A
128-129	4 519 111 A	4 519 111 A
129-130	5 019 111 A	5 019 111 A
130-131	5 119 111 A	5 119 111 A
131-132	5 219 111 A	5 219 111 A
132-133	5 319 111 A	5 319 111 A
133-134	5 419 111 A	5 419 111 A
134-135	5 519 111 A	5 519 111 A
135-136	6 019 111 A	6 019 111 A
136-137	6 119 111 A	6 119 111 A
137-138	6 219 111 A	6 219 111 A
138-139	6 319 111 A	6 319 111 A
139-140	6 419 111 A	6 419 111 A
140-141	6 519 111 A	6 519 111 A
141-142	7 019 111 A	7 019 111 A
142-143	7 119 111 A	7 119 111 A
143-144	7 219 111 A	7 219 111 A
144-145	7 319 111 A	7 319 111 A
145-146	7 419 111 A	7 419 111 A
146-147	7 519 111 A	7 519 111 A
147-148	8 019 111 A	8 019 111 A
148-149	8 119 111 A	8 119 111 A
149-150	8 219 111 A	8 219 111 A
150-151	8 319 111 A	8 319 111 A
151-152	8 419 111 A	8 419 111 A
152-153	8 519 111 A	8 519 111 A
153-154	9 019 111 A	9 019 111 A
154-155	9 119 111 A	9 119 111 A
155-156	9 219 111 A	9 219 111 A
156-157	9 319 111 A	9 319 111 A
157-158	9 419 111 A	9 419 111 A
158-159	9 519 111 A	9 519 111 A
159-160	10 019 111 A	10 019 111 A
160-161	10 119 111 A	10 119 111 A
161-162	10 219 111 A	10 219 111 A
162-163	10 319 111 A	10 319 111 A
163-164	10 419 111 A	10 419 111 A
164-165	10 519 111 A	10 519 111 A
165-166	11 019 111 A	11 019 111 A
166-167	11 119 111 A	11 119 111 A
167-168	11 219 111 A	11 219 111 A
168-169	11 319 111 A	11 319 111 A
169-170	11 419 111 A	11 419 111 A
170-171	11 519 111 A	11 519 111 A
171-172	12 019 111 A	12 019 111 A
172-173	12 119 111 A	12 119 111 A
173-174	12 219 111 A	12 219 111 A
174-175	12 319 111 A	12 319 111 A
175-176	12 419 111 A	12 419 111 A
176-177	12 519 111 A	12 519 111 A
177-178	1 019 111 A	1 019 111 A
178-179	1 119 111 A	1 119 111 A
179-180	1 219 111 A	1 219 111 A
180-181	1 319 111 A	1 319 111 A
181-182	1 419 111 A	1 419 111 A
182-183	1 519 111 A	1 519 111 A
183-184	2 019 111 A	2 019 111 A
184-185	2 119 111 A	2 119 111 A
185-186	2 219 111 A	2 219 111 A
186-187	2 319 111 A	2 319 111 A
187-188	2 419 111 A	2 419 111 A
188-189	2 519 111 A	2 519 111 A
189-190	3 019 111 A	3 019 111 A
190-191	3 119 111 A	3 119 111 A
191-192	3 219 111 A	3 219 111 A
192-193	3 319 111 A	3 319 111 A
193-194	3 419 111 A	3 419 111 A
194-195	3 519 111 A	3 519 111 A
195-196	4 019 111 A	4 019 111 A
196-197	4 119 111 A	4 119 111 A
197-198	4 219 111 A	4 219 111 A
198-199	4 319 111 A	4 319 111 A
199-200	4 419 111 A	4 419 111 A

122 121 N 10° 30' E	103.9	2" Tube	*	*	*	*	*	*	*
123 122 N 10° 30' E	103.9	2" Tube	*	*	*	*	*	*	*
124 123 N 10° 30' E	103.5	2" Pipe Mon.	*	*	*	*	*	*	*
125 124 N 10° 30' E	103.1	2" Tube	*	*	*	*	*	*	*
126 125 N 10° 30' E	102.7	2" Tube	*	*	*	*	*	*	*
127 126 N 10° 30' E	102.3	2" Tube	*	*	*	*	*	*	*
128 127 N 10° 30' E	101.9	2" Pipe Mon.	*	*	*	*	*	*	*
129 128 N 10° 30' E	101.5	2" Tube	*	*	*	*	*	*	*
130 129 N 10° 30' E	101.1	2" Tube	*	*	*	*	*	*	*
131 130 N 10° 30' E	100.7	2" Tube	*	*	*	*	*	*	*
132 131 N 10° 30' E	100.3	2" Pipe Mon.	*	*	*	*	*	*	*

West of 6" of road leading to
Thousand Canyon on the northern
side of the desert the 10" of
corner of lot "A" according to the
part of DEED MARIA GARDNER, Santa
Barbara County, California, dated
1911, 1912, 1913, 1914, 1915, 1916,
that certain interest in said land
herein set forth, and by the
between the said MARIA GARDNER and
WALTER HIGGINS and WALTER HIGGINS

SECTION 10 TOWNSHIP 10 NORTH RANGE 10 EAST
COUNTY OF SANTA BARBARA, CALIFORNIA

corner of lot "A" being indicated
by P. J. MARSHALL
And running thence along the North-
westly line of the said lot "A"
in the same way indicated up to the
ground by P. J. MARSHALL.

133 132 N 10° 30' E 1728.8 | 2" Pipe Mon. on fence line at Northwestly corner of adjacent lot "A" which was indicated on the ground by P. J. MARSHALL. |

And running thence along the stream bed

134 133 N 10° 30' E	1728.8	2" Pipe Mon. on fence line.	*	*	*	*	*	*	*
135 134 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
136 135 N 10° 30' E	1728.8	2" Pipe Mon.	*	*	*	*	*	*	*
137 136 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
138 137 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
139 138 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
140 139 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
141 140 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
142 141 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
143 142 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
144 143 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
145 144 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
146 145 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
147 146 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
148 147 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
149 148 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
150 149 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
151 150 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
152 151 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
153 152 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
154 153 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
155 154 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
156 155 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
157 156 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*
158 157 N 10° 30' E	1728.8	2" Tube	*	*	*	*	*	*	*

Station	Latitude	Longitude	Notes
161	171° N 069° 21' W	42° 10' 47" E	
162	171° N 069° 21' W	42° 10' 47" E	

Station	Latitude	Longitude	Notes
163	171° N 069° 21' W	42° 10' 47" E	
164	171° N 069° 21' W	42° 10' 47" E	
165	171° N 069° 21' W	42° 10' 47" E	
166	171° N 069° 21' W	42° 10' 47" E	
167	171° N 069° 21' W	42° 10' 47" E	
168	171° N 069° 21' W	42° 10' 47" E	
169	171° N 069° 21' W	42° 10' 47" E	
170	171° N 069° 21' W	42° 10' 47" E	

Station	Latitude	Longitude	Notes
171	171° N 069° 21' W	42° 10' 47" E	
172	171° N 069° 21' W	42° 10' 47" E	
173	171° N 069° 21' W	42° 10' 47" E	
174	171° N 069° 21' W	42° 10' 47" E	
175	171° N 069° 21' W	42° 10' 47" E	
176	171° N 069° 21' W	42° 10' 47" E	
177	171° N 069° 21' W	42° 10' 47" E	
178	171° N 069° 21' W	42° 10' 47" E	
179	171° N 069° 21' W	42° 10' 47" E	
180	171° N 069° 21' W	42° 10' 47" E	
181	171° N 069° 21' W	42° 10' 47" E	
182	171° N 069° 21' W	42° 10' 47" E	
183	171° N 069° 21' W	42° 10' 47" E	
184	171° N 069° 21' W	42° 10' 47" E	
185	171° N 069° 21' W	42° 10' 47" E	
186	171° N 069° 21' W	42° 10' 47" E	
187	171° N 069° 21' W	42° 10' 47" E	
188	171° N 069° 21' W	42° 10' 47" E	
189	171° N 069° 21' W	42° 10' 47" E	
190	171° N 069° 21' W	42° 10' 47" E	
191	171° N 069° 21' W	42° 10' 47" E	
192	171° N 069° 21' W	42° 10' 47" E	
193	171° N 069° 21' W	42° 10' 47" E	
194	171° N 069° 21' W	42° 10' 47" E	
195	171° N 069° 21' W	42° 10' 47" E	
196	171° N 069° 21' W	42° 10' 47" E	
197	171° N 069° 21' W	42° 10' 47" E	
198	171° N 069° 21' W	42° 10' 47" E	
199	171° N 069° 21' W	42° 10' 47" E	
200	171° N 069° 21' W	42° 10' 47" E	

Station	Latitude	Longitude	Notes
201	171° N 069° 21' W	42° 10' 47" E	
202	171° N 069° 21' W	42° 10' 47" E	
203	171° N 069° 21' W	42° 10' 47" E	
204	171° N 069° 21' W	42° 10' 47" E	
205	171° N 069° 21' W	42° 10' 47" E	
206	171° N 069° 21' W	42° 10' 47" E	
207	171° N 069° 21' W	42° 10' 47" E	
208	171° N 069° 21' W	42° 10' 47" E	
209	171° N 069° 21' W	42° 10' 47" E	
210	171° N 069° 21' W	42° 10' 47" E	
211	171° N 069° 21' W	42° 10' 47" E	
212	171° N 069° 21' W	42° 10' 47" E	
213	171° N 069° 21' W	42° 10' 47" E	
214	171° N 069° 21' W	42° 10' 47" E	
215	171° N 069° 21' W	42° 10' 47" E	
216	171° N 069° 21' W	42° 10' 47" E	
217	171° N 069° 21' W	42° 10' 47" E	
218	171° N 069° 21' W	42° 10' 47" E	
219	171° N 069° 21' W	42° 10' 47" E	
220	171° N 069° 21' W	42° 10' 47" E	

207	206	N 40° 51' E	100.0	207	206	N 40° 51' E	100.0
208	207	N 39° 41' E	339.5	208	207	N 39° 41' E	339.5
209	208	N 51° 59' E	470.6	209	208	N 51° 59' E	470.6
210	209	N 61° 42' E	103.4	210	209	N 61° 42' E	103.4
211	210	N 55° 42' E	210.3	211	210	N 55° 42' E	210.3
STATION 201 TO 211				STATION 212 TO 225			
212	211	N 39° 31' E	111.1	212	211	N 39° 31' E	111.1
213	212	N 39° 31' E	111.1	213	212	N 39° 31' E	111.1
214	213	N 39° 31' E	111.1	214	213	N 39° 31' E	111.1
215	214	N 39° 31' E	111.1	215	214	N 39° 31' E	111.1
216	215	N 39° 31' E	111.1	216	215	N 39° 31' E	111.1
217	216	N 39° 31' E	111.1	217	216	N 39° 31' E	111.1
218	217	N 39° 31' E	111.1	218	217	N 39° 31' E	111.1
219	218	N 39° 31' E	111.1	219	218	N 39° 31' E	111.1
220	219	N 39° 31' E	111.1	220	219	N 39° 31' E	111.1
221	220	N 39° 31' E	111.1	221	220	N 39° 31' E	111.1
222	221	N 39° 31' E	111.1	222	221	N 39° 31' E	111.1
223	222	N 39° 31' E	111.1	223	222	N 39° 31' E	111.1
224	223	N 39° 31' E	111.1	224	223	N 39° 31' E	111.1
225	224	N 39° 31' E	111.1	225	224	N 39° 31' E	111.1
226	225	N 39° 31' E	111.1	226	225	N 39° 31' E	111.1
227	226	N 39° 31' E	111.1	227	226	N 39° 31' E	111.1
228	227	N 39° 31' E	111.1	228	227	N 39° 31' E	111.1
229	228	N 39° 31' E	111.1	229	228	N 39° 31' E	111.1
230	229	N 39° 31' E	111.1	230	229	N 39° 31' E	111.1
231	230	N 39° 31' E	111.1	231	230	N 39° 31' E	111.1
232	231	N 39° 31' E	111.1	232	231	N 39° 31' E	111.1
233	232	N 39° 31' E	111.1	233	232	N 39° 31' E	111.1
234	233	N 39° 31' E	111.1	234	233	N 39° 31' E	111.1
235	234	N 39° 31' E	111.1	235	234	N 39° 31' E	111.1
236	235	N 39° 31' E	111.1	236	235	N 39° 31' E	111.1
237	236	N 39° 31' E	111.1	237	236	N 39° 31' E	111.1
238	237	N 39° 31' E	111.1	238	237	N 39° 31' E	111.1
239	238	N 39° 31' E	111.1	239	238	N 39° 31' E	111.1
240	239	N 39° 31' E	111.1	240	239	N 39° 31' E	111.1
241	240	N 39° 31' E	111.1	241	240	N 39° 31' E	111.1
242	241	N 39° 31' E	111.1	242	241	N 39° 31' E	111.1
243	242	N 39° 31' E	111.1	243	242	N 39° 31' E	111.1
244	243	N 39° 31' E	111.1	244	243	N 39° 31' E	111.1
245	244	N 39° 31' E	111.1	245	244	N 39° 31' E	111.1
246	245	N 39° 31' E	111.1	246	245	N 39° 31' E	111.1
247	246	N 39° 31' E	111.1	247	246	N 39° 31' E	111.1
248	247	N 39° 31' E	111.1	248	247	N 39° 31' E	111.1
249	248	N 39° 31' E	111.1	249	248	N 39° 31' E	111.1
250	249	N 39° 31' E	111.1	250	249	N 39° 31' E	111.1
251	250	N 39° 31' E	111.1	251	250	N 39° 31' E	111.1
252	251	N 39° 31' E	111.1	252	251	N 39° 31' E	111.1
253	252	N 39° 31' E	111.1	253	252	N 39° 31' E	111.1
254	253	N 39° 31' E	111.1	254	253	N 39° 31' E	111.1
255	254	N 39° 31' E	111.1	255	254	N 39° 31' E	111.1
256	255	N 39° 31' E	111.1	256	255	N 39° 31' E	111.1

STATION	COURSE	DISTANCE	REMARKS
257	256	111.1	
257	256	111.1	257
258	257	111.1	258
259	258	111.1	259
260	259	111.1	260
261	260	111.1	261
262	261	111.1	262
263	262	111.1	263
264	263	111.1	264
265	264	111.1	265
266	265	111.1	266
267	266	111.1	267
268	267	111.1	268
269	268	111.1	269
270	269	111.1	270
271	270	111.1	271
272	271	111.1	272
273	272	111.1	273
274	273	111.1	274
275	274	111.1	275
276	275	111.1	276
277	276	111.1	277
278	277	111.1	278
279	278	111.1	279
280	279	111.1	280
281	280	111.1	281
282	281	111.1	282
283	282	111.1	283
284	283	111.1	284
285	284	111.1	285
286	285	111.1	286
287	286	111.1	287
288	287	111.1	288
289	288	111.1	289
290	289	111.1	290
291	290	111.1	291
292	291	111.1	292
293	292	111.1	293
294	293	111.1	294
295	294	111.1	295
296	295	111.1	296
297	296	111.1	297
298	297	111.1	298
299	298	111.1	299
300	299	111.1	300

description of CBP; of water bearing tract for "Cam 1" at lying; etc. etc.
 track and more particularly described as follows:

15. Project Name : Water Boring trial for "Jalgaon", 1971

1. The evidence is not directly in front of us, extending nor is it in front of us.

Appendix 7

**CORPORATION GRANT DEED, RANCHO JESUS MARIA, INC.
TO THE UNITED STATES OF AMERICA
SEPTEMBER 30, 1942**

Deeds 538, Page 170ff, Santa Barbara County Records

CORPORATION GRANT DEED

RANCHO JESUS MARIA, INC., a corporation,

organized under the laws of the State of California, GRANTOR,
in consideration of SEVEN HUNDRED FIFTY THOUSAND and No/100 (\$750,000.00)
DOLLARS, to it in hand paid, receipt of which is hereby acknowledged,
DOES HEREBY GRANT TO

THE UNITED STATES OF AMERICA, Grantee,

All those certain pieces, parcels, tracts and lots
of land situate, lying and being in the County of Santa Barbara, State
of California, and particularly bounded and described as follows:

PARCEL ONE:

First: All that certain tract of land generally known as
the "Rancho Jesus Maria", which said Rancho was patented to Lewis T.
Burton and Jose Carrillo by the United States of America, by patent
dated September 7th, 1871, and recorded in the office of the County
Recorder of said County of Santa Barbara, in Book "A", page 372, et seq.
of Patents.

SAVING AND EXCEPTING from said tract of land those certain
pieces or parcels thereof, described as follows:

1. That portion thereof described in the Deed
from J. B. Burton to California Steamship
Company, a corporation, dated April 18th, 1899,
recorded in Book 24, page 292 of Deeds, records
of said Santa Barbara County, and reciting in
said deed as containing 10 acres.
2. That portion thereof described in the Deed from
J. B. Burton to Albert Packard, dated September
11th, 1889, recorded in Book 25, page 414 of
Deeds, records of said Santa Barbara County, and
reciting in said deed as containing 9039.48 acres.
3. That portion thereof described in the deed from
J. Ben Burton to John H. Wise and Thomas Denigan,
dated November 17th, 1891, recorded in Book 32,
page 189 of Deeds, records of said Santa Barbara
County, and reciting in said deed as containing
81.74 acres.

4. Certain strips or parcels of land conveyed by said Marshall Properties Holding Company, a corporation, or its predecessors in interest, to the Southern Pacific Railroad Company, for railroad purposes, and to the County of Santa Barbara for road purposes.
5. That portion thereof described in the deed from Stella F. Burton, wife of J. Ben Burton, to the County of Santa Barbara, dated September 18th, 1902, recorded in Book 87 pages 68 and 69 of Deeds, records of said Santa Barbara County, and reciting in said deed as containing one acre.
6. Those portions thereof described in the deed from Casmalia Ranch & Cattle Company, a corporation, to Union Sugar Company, a corporation, dated October 30th, 1922, recorded in Book 212 page 106 of Deeds, records of said Santa Barbara County, and reciting in said deed as containing 1024.89 acres, more or less, and as amended by deed from said Casmalia Ranch & Cattle Company to said Union Sugar Company, dated May 26th, 1924, recorded in Book 40 page 66 of Official Records of said Santa Barbara County.
7. That portion thereof lying Northeasterly of that certain fence as defined by the amended decree filed September 29th, 1917, in an action entitled "Rebecca R. Ord Peshine vs. Jesus Maria Rancho, a corporation", Case No. 6698, Superior Court of the State of California, in and for the County of Santa Barbara.
8. That portion thereof described as Parcel 4 in the deed from Marshall Properties Holding Company, a corporation, to The Petrol Corporation, a corporation, recorded in Book 429 page 83, Official Records of said Santa Barbara County.

Second: That portion of the Rancho La Purissima or Mission de la Purissima described in the deed from John H. Wise and Thomas Denigen to J. Ben Burton, dated November 17th, 1891, and recorded in Book 32 page 421 of Deeds, in the office of the County Recorder of said Santa Barbara County, and reciting in said deed as containing 139.54 acres of land.

PARCEL TWO:

All that portion of the "Casmalia Rancho", patented by the United States to Antonio Olivera on July 30, 1863, which is described as follows, to wit:

Beginning at the mouth of the Casmalia Creek at high water mark of the Pacific Ocean at a large mound of rocks, running thence along the Northerly line Rancho Jesus Maria, as patented South $64^{\circ}45'$ East 281.50 chains to a large stone marked "J.M.L.C.P.M.", from which a leaning live oak tree 8 inches in diameter bears West 33 links distant marked "B.T.P.M.", on the East side of the road; thence descending North 30° East 32.40 chains to a large stone marked "Phoenix Merritt" South of Casmalia Creek near the mouth of a gulch coming from the Southeast (an old willow tree marked by Terrell bears East about 15 feet); thence ascending the ridge between the Ospe and Casmalia North $26^{\circ}15'$ West 116.20 chains to a mound of rocks 5 feet high; thence continuing along said ridge and running principally to the East of the summit of the same North $32^{\circ}55'$ West 284.85 chains to a live oak tree on the North line of the Casmalia Rancho; thence South $63^{\circ}23'$ West 183.20 chains to a point Morrito; thence along high water mark of the Pacific Ocean South 70° East 24 chains; thence along said high water mark South 42° East 30 chains; thence along high water mark South 56° East 27 chains; thence along high water mark South $70^{\circ}45'$ East 10 chains; thence along high water mark South $60^{\circ}30'$ East 17 chains; thence along high water mark South $30^{\circ}45'$ East 10 chains; thence along high water mark South 40° East 13 chains; thence along high water mark South 12° East 32 chains; thence along high water mark South $26^{\circ}30'$ West 35 chains to the place of beginning.

EXCEPTING THEREFROM certain strips and parcels of land conveyed to Southern Pacific Railroad Company for railroad purposes.

ALSO EXCEPTING THEREFROM those portions thereof described as Parcels 1, 2, 3a and 3b in the deed from Marshall Properties Holding Company, a corporation, to The Petrol Corporation, a corporation, recorded in Book 429 page 83, Official Records of said County.

ALSO EXCEPTING THEREFROM those portions thereof described in the deed from Marshall Properties Holding Company, a corporation, to County of Santa Barbara, recorded in Book 385 page 97 of Official Records.

PARCEL THREE:

All that certain portion of the Rancho Guadalupe, patented by the United States to Diego Olivera and Teodoro Arellanos, by patent dated March 1st, 1870, and recorded in Book "A" of Patents, page 292, in said County Recorder's office of Santa Barbara County which portion is described as follows, to wit:

All of Subdivisions Numbers 133, 134 and 135 of Map of the Rancho Guadalupe, as surveyed and subdivided, by J. T. Stratton in November, 1871, filed in the County Recorder's Office of said Santa Barbara County on the 8th day of March 1880 in Book "B" of Miscellaneous Records, page 422; said subdivisions being otherwise described as follows:

Commencing at the highest point of the Morrito, being the Southwest corner of said Subdivision 133, and being also the Northwest corner of the Rancho Casimira; running thence North 64° East 182.28 chains to the Southeast corner of said Subdivision 133; thence North 31° West 15.37 chains to Station 326 of the Stratton Survey; thence North 55°15' West 12 chains to Station 325 of said Survey; being the Northeast corner of said Subdivision 133; thence North 63°30' West 12.51 chains to Station 327 of said Survey; thence North 69°30' West 32.39 chains to Station 328 of said Survey; thence North 30°30' West, 12 chains to Station 329 of said survey; thence North 77° West 34.27 chains to Station 330 of said Survey; being the Northeast corner of said Subdivision 134, and the Southeast corner of said Subdivision 135; thence North 36° West 9.50 chains to Station 331 of said Survey; thence North 58°15' West 16 chains to Station 306 of said Survey; thence South 75° West 20.17 chains to Station 305 of said Survey; thence North 82°45' West, 41 chains to Station 304 of said Survey; thence North 61°15' West 26.90 chains to Station 303 of said Survey; thence North 70°30' West 35.24 chains to Station 302 of said Survey; being the North corner of said Subdivision 135; thence South 12°30' East 43 chains along the Westerly line of said Subdivision to a post 12 inches in diameter marked "P.H. No.1" on the shore of the Pacific Ocean where a ledge of rock rises abruptly and perpendicularly from the seashore near the point known as Point Sal; thence Southerly along the line of high water mark of the Pacific Ocean to the point of beginning.

EXCEPTING THEREFROM a parcel of land described in the deed from Theodore Le Roy to Z. B. Heywood and S. H. Harmon, dated June 28th, 1876, recorded in Book "Q" page 260 of Deeds, records of Santa Barbara County, and reciting in said deed as containing 62 acres.

ALSO EXCEPTING THEREFROM the parcel of land described in the deed from Theodore Le Roy to Henry A. Averill, dated December 3rd, 1880, recorded in Book "Y" page 446 of Deeds, records of said Santa Barbara County, and reciting in said deed as containing 2.81 acres.

ALSO EXCEPTING THEREFROM any portion thereof conveyed to the County of Santa Barbara for road purposes.

ALSO EXCEPTING THEREFROM any portion thereof conveyed to the County of Santa Barbara by the Rancho Jesus Maria, Inc., set forth in deed recorded December 5, 1940 in Book 482, page 288 of Official Records of Santa Barbara County.

AND EXCEPTING from said Parcels Two and Three and all of Parcel One except that portion included within the lines of the ten-acre parcel of land described in the deed from Lewis T. Burton to Lompoc Valley Land Company, recorded in Book "R" page 627 of Deeds, records of said County, all coal, lignite, coal oil, petroleum, naphtha, asphaltum, brea, bitumen, natural gas and all other hydrocarbon and like substances, upon, in or under said lands or which may at any time exist upon, in or under said lands, as reserved in the deed from Union Oil Company of California, a corporation, to H. S. Stephenson, recorded in Book 119 page 51 of Deeds, records of said Santa Barbara County.

SUBJECT TO THE FOLLOWING:

1. The right of the public to use for road purposes any portion of the land herein described lying within the lines of any public road or highway.

2. The right to take from a spring on Subdivision 135 of Rancho Guadalupe, one-half of the water supplied by said spring, as reserved in the deed from Victor Le Roy, et al. to Eliza Clark, recorded in Book 4 page 533 of Deeds, records of said Santa Barbara County, and as decreed by the Court in an action, Case No. 9570 Superior Court of the State of California, in and for the County of Santa Barbara, a certified copy of which decree is recorded in Book 161 page 75 of Deeds, records of said County.

3. The right to prospect for, mine, work and remove gypsum from that portion of said Parcel 3 formerly belonging to Eliza Jane Clark, to make roads, erect buildings and use all water necessary for said purposes, as granted by way of license by said Eliza Jane Clark to Thomas Wilkinson, by document recorded in Book "C" page 226 of Leases, records of Santa Barbara County.

4. The right of the Southern Pacific Railroad Company, a corporation, to extend slopes of its cuttings or embankments and to build and maintain culverts and surface ditches beyond the limits of its rights of way in Rancho Casamalia and Jesus Maria where necessary, for the proper construction and maintenance of its railroad and the right to quarry and haul stone for the construction of culverts and bridges, as granted by deeds appearing of record in the office of the County Recorder of said Santa Barbara County.

5. Such rights and privileges as may be incidental and appurtenant to the ownership of all coal, lignite, coal oil, petroleum, naphtha, asphaltum, brea, bitumen, natural gas and all other hydrocarbon and like substances excepted from the land herein described, as reserved in the deed from Union Oil Company of California, a corporation, recorded in Book 119 page 51 of Deeds.

6. The following easements, rights of way, and rights granted to the Union Sugar Company, a corporation, by Casmaia Ranch & Cattle Company, a corporation, by deed dated October 30, 1922 recorded in Book 212 page 106 of Deeds, as amended by deed dated June 4, 1924, recorded in Book 40 page 66 of Official Records of Santa Barbara County, to wit:

a. An easement and right of way for the construction, maintenance and operation of railroad across a portion of Rancho Jesus Maria.

b. An easement and right of way for drainage canal westerly across said Rancho Jesus Maria from the parcel of land first described in said deeds, to the Pacific Ocean, following San Antonio Creek; with the right to widen, deepen and change the course of said creek for more efficient drainage of water, including flood and irrigation water; with the right or privilege of ingress and egress for the purpose of maintaining and renewing the then existing tile lines and drain ditches then constructed or that may be constructed upon the land adjacent to said parcel of land first described in said deeds, to conduct water to the main drain canal or the extension of San Antonio Creek through San Antonio Valley.

c. The right to do such work and build such reasonable structures upon the adjoining property to protect said parcel of land first described in the last mentioned deed, against flood water of San Antonio Creek in the event that at any time said creek shall change its course so as to run outside of said parcel of land.

d. The right to take and use the water now developed or hereafter developed from certain springs or water bearing lands (four parcels) in Rancho Jesus Maria, for domestic and farm equipment purposes and to water all work stock only; and the right to fence the boxes installed for spring or water outlets, as developed from time to time on said water bearing lands.

7. The right of Marshallia Guest Ranch, Inc. to occupy the guest ranch and to use the same for dude ranch purposes for a period of six (6) months from August 22, 1941.

8. The right of Edward Vail to run cattle on the hereinabove described property (except in the construction zone) until December 31, 1941, free from payment of rental to the grantee.

TOGETHER with the buildings and improvements thereon and all rights and appurtenances thereto.

TO HAVE AND TO HOLD the same unto said grantee and its assigns forever. And said Grantor, for itself and its successors and assigns, covenants and agrees to and with said grantee and its assigns, to warrant and defend the sale of said land against all and every person and persons whomsoever lawfully claiming or to claim the same.

IN WITNESS WHEREOF, said Corporation has caused its corporate name and seal to be affixed hereto and this instrument to be executed by its President and Treasurer, thereunto duly authorized, this 30th day of September, 1941.

RANCHO JESUS MARIA, Inc.

BY F. R. LONG
President

(SEAL)

AND BY HOWARD W. WRIGHT
Treasurer

STATE OF CALIFORNIA }
County of Los Angeles } ss

On this 30th day of September, 1941, before me a Notary Public in and for the County of Los Angeles, State of California, personally appeared F. R. LONG, known to me to be the President and HOWARD W. WRIGHT, known to me to be the Treasurer of RANCHO JESUS MARIA, Inc., the corporation that executed the within and foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

WITNESS my hand and official seal.

(NOTARIAL SEAL)

ALICE MacPHERSON
Notary Public in and for the
County of Los Angeles, State
of California.

MY COMMISSION EXPIRES: My Commission Expires
Feb. 15, 1943.

Appendix 8

GRAIN LEASE BETWEEN JESUS MARIA RANCHO CORPORATION
AND CHARLES W. SHORT
SEPTEMBER 1, 1910

Leases 1, Page 504-507, Santa Barbara County Records

The term of this lease, subject to the performance by the party of the covenants and conditions herein expressed and, subject also to the statute and field rights of the party as hereinafter stated, is as follows: It begins on the 1st day of October, 1910, and terminates on the 31st day of August 1911.

The party of the second part agrees at his sole cost and expense, to plow said land to grain before the first day of January, 1911, and likewise at his own cost and expense to care for, attend and harvest the same in a skillful and husbandlike manner, and to pay all expenses thereof of transportation, and also will not suffer waste to be committed on the leased premises, and he will not lease or premises nor any part thereof; that he will not, as the first part, that he will not pledge, hypothecate nor otherwise dispose of the same, nor under any pretext whatsoever, that he will not mortgage, pledge, hypothecate nor otherwise dispose of the growing crop to be raised on said premises, nor any part thereof, nor permit any mortgage, attachment, execution, judgment or other lien to be placed upon the growing crop to be raised on said premises, nor any part thereof, and he will further said term keep all buildings, corrals and other improvements on the premises, or which may be on the premises at the termination of the term of the lease, in good repair, damage by fire excepted.

The second party further agrees, that no portion of said leased premises shall be taken for any part of the grain crop thereon, but for hay, wheat and potatoes, and the same shall be divided between the parties hereto. For each portion of said crop, the first party shall have the right to receive in cash \$3.00 per acre, or 2nd, to receive delivered into the barn of the first party at the headquarters 1/4 of all the hay cut on said premises, and the second party further agrees that he will keep the leased premises and to the same, free from mustard, radish and all other noxious plants, and that he will pull up and destroy the same in proper season to prevent the same from growing and that if he shall fail properly and timely to do so the first party shall be at the expense of the second party.

It is further agreed by the second party that he will furnish without cost to the first party, the seed corn to be sown on said premises, and he will furnish the seed for the growing of hay and all kinds of grain, and

entirely free and clean of morning glory or other weeds and the seeds thereof.

The second party further agrees that he will not use, employ or bring, or permit or cause to be used, employed or brought upon said lands, any threshing or other machinery, until the event said second party has not completed arrangements for the threshing of grain grown on the lands covered by this lease on or before the 15th day of June, the party of the first part shall have the right, at its option, to employ a threshing machine outfit for the work of threshing said grain at the sole cost and expense of said second party on terms and conditions usual and customary for the threshing of grain.

In consideration of the execution of this lease the party of the second part agrees that if said demised premises be farmed for grain or beans, harvest the same, thresh, clean, sack in good, new and merchantable sacks all the said farm products grown on said premises and deliver one-fourth (1/4) part of each quality of said farm products at fair price for fair care, or in warehouse, as may be requested by the first party (or its agent), at some other point of not greater distance) and that no part of the crops raised on said demised premises shall be removed until the share, or shares, of the first party have been marked, hauled and delivered, and until satisfactory arrangements have been made for the payment of all indebtedness due to the first party. The party of the second part further agrees to deliver the first party's share of all screenings to the ranch headquarters of the party of the first part.

The second party further agrees, that he will have all farm products (beans excepted) raised on said leased premises removed therefrom on or before the fifteenth day of August of each and every year, and that all straw, stubble and feed on said premises, together with the right of entry thereon, are hereby reserved for the sole use and benefit of the first party. And in case there should be a failure of the whole or any part of the crop, so that the same could not be harvested in the usual manner as merchantable hay or grain, then such parts shall be considered as feed, and as the property of the party of the first part.

And it is mutually covenanted and agreed that until the delivery of the crop or crops herein stated, the party of the first part shall have a lien and charge upon the entire crop of grain and hay sown, growing or harvested, for the purpose of securing said first part the use and rental of said premises and as a guarantee of faithful performance by the party of the second part of all his covenants under this lease, and the party of the first part reserves the right by its agent or agents, to enter upon said premises at any time for the examination of the premises and crop. And if the party of the first part shall at any time deem itself insecure and unsafe in the matter of the rental, or if the party of the second part shall violate any of his covenants and agreements as in this instrument expressed, the party of the first part may take immediate possession of the leased premises, secure or harvest the crop, and may dispose of the same by sale or otherwise, according to the party of the second part any excess actually realized by the party of the first part over and above the rental or use of said premises and all expenses incurred or, in such case harvest and make sale of said crop and any damage sustained or expenses incurred by reason of the failure of the second party to keep and perform any of his covenants herein expressed.

The second party further agrees that he will at his own expense poison and exterminate all vermin on said demised premises and on all roads and lanes through or bordering said demised premises (the strychnine for poisoning to be furnished by said party of the

first part when requested) and it is understood and agreed by and between the parties hereto, that if the party of the second part fails to take suitable and proper means at the proper times to poison and exterminate the squirrels and to keep them exterminated the party of the first part may do the same, for which the party of the second part agrees to pay all proper costs and charges on demand.

It is mutually and expressly understood and agreed that the party of the first part reserves the right and privilege to enter upon said leased premises at any time for the purpose of exploring the same for water, and to dig, sink, bore or other wise develop artesian wells; and to dig ditches, construct reservoirs, lay pipes, erect pumping plants and other appliances for the development or distribution of water.

It is expressly understood and agreed that this lease is made subject to the reserved rights and rights of way of the Union Oil Company of California.

The second party further agrees to remove every six months, all manure from the barn and stable enclosures covered by this lease, and to distribute same on near by farm lands.

It is mutually agreed that the first party shall not be liable for damages, if any be done, on said leased premises or to the crop thereon by any live stock or other cause.

The party of the second part agrees to make no changes or alterations in any buildings, corrals, or fences, or any other improvements located or to be located on the lands covered by this lease, and cut no trees or timber of any kind; and the second party further agrees that he will do no work, nor perform any service entitling him to make a charge or claim against the party of the first part for service rendered or material furnished, unless first authorized in writing by the party of the first part so to do.

The party of the second part agrees that he nor any member of his family will go roving or shooting, and will forbid any employee from hunting or shooting on any part of the lands covered by this lease, or on any part of the lands belonging to the party of the first part.

It is agreed by and between the parties hereto, that all of said lands covered by this lease, are to be plowed and seeded to Oats, or Barley, or both only, for the crop season of 1911.

It is Agreed by and between the parties hereto that no live stock of any kind, belonging to or under the control of said second party, shall be allowed to run on any of the lands covered by this lease, during the term thereof, it being expressly understood that all live stock belonging to or controlled by said second party must be confined at the headquarters or corral of the said second party while engaged on the work of farming the lands covered by this lease.

It is understood and agreed that no portion of this lease may be altered, waived or modified in any manner, except in writing over the signature of the President or Vice President of the Jesus Maria Rancho.

In witness whereof, the party of the first part has caused these presents to be executed by its agent for the purpose duly authorized, and the party of the second part has caused to set his hand the day and year first above written.

{ Jesus Maria Rancho }
{ Corporate Seal }

Jesus Maria Rancho
By E. J. Marshall
Robt. Rultmann
Charles W. Short

President
Secy.

State of California }
County of Santa Barbara, ss.

On this 5 day of Sept in the year nineteen hundred and ten before me, R. F. Payley, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn

Appendix 9

NOTICE OF LOCATION "JUST IN TIME" PLACER MINING CLAIM
[MOUTH OF SAN ANTONIO CREEK TO LOMPOC LANDING]
FEBRUARY 9, 1903

AND

NOTICE OF LOCATION "THE DESERT"
[PLACER MINING CLAIM ALONG BEACH]
FEBRUARY 9, 1903

Miscellaneous G, Pages 276, 277, 279, Santa Barbara County Records

AD-A146 598

ARCHAEOLOGICAL INVESTIGATIONS ON THE SAN ANTONIO
TERRACE VANDENBERG AIR F. (U) CHAMBERS CONSULTANTS AND
PLANNERS STANTON CA L J ROBERTS JAN 84

3/3

UNCLASSIFIED

DACA09-81-C-0048

F/G 5/6

NL





Empire Landing Property to the Pacific Ocean, thence
 along the Pacific Ocean in a northerly direction to the
 point of beginning, the mouth of San Antonio Creek.
 This claim comprises the area of Ocean View, and
 other of location is situated in San Antonio
 County, Cal.

This claim is situated in the Western portion of
 San Antonio County, California, 125 to 130 miles
 from San Francisco, and is the property of
 the Empire Landing.

located on the north side of San Antonio Creek, at
 San Antonio.

John A. Thompson	W. H. Thompson
George Thompson	Harry Thompson
Wm. H. Thompson	William Thompson
John A. Thompson	W. H. Thompson
George Thompson	Harry Thompson

Recorded at the Office of Arthur Rudolph
 10th St. San Francisco, Cal. at San Francisco
 10th St. San Francisco, Cal.

Notice of Location

Fred A. Parker et al.

Locators

Notice

To whom it may concern.

Notice is hereby given

that the undersigned have taken up with the object of developing minerals and mineral oil, the following described lands, to wit:-

Beginning at a stake and monument at the Northeast corner and monument known as "The Gobbler"; thence Northerly seven hundred and fifty feet along the West line of the lands known as the Burton Ranch to a stake and monument called "The Central Monument," Thence Northerly seven hundred and fifty feet to a stake and monument; Thence West to low water mark in the Pacific Ocean; Thence Southerly along the line of low water mark fifteen hundred feet thence East to the place of beginning. This land is taken up under the laws of the United States of America and the State of California. This claim is known as "The Desert"

Dated, Lompoc, California February 9th (Ninth) 1901

Appendix 10

**ORDINANCE NUMBER 82
DECLARING A PUBLIC HIGHWAY [LOMPOC LANDING A PUBLIC ROAD]
Santa Barbara County Surveyor's Office**

Ordinance No. 22

In the Matter of the Petition of }
John L. Irwin and others for a } Ordinance No. 82
road in Road District No 5 in the } Declaring a Public
Fifth Township of Santa Barbara Co. } Highway.

The Board of Supervisors of the county of Santa Barbara, do ordain as follows: The report of the road viewers heretofore appointed in the above entitled matter having come on regularly to be heard on the 2nd day of April 1889, and the board having duly considered the same, and on the 2nd day of April 1889 having by order duly made and entered declared the report of the viewers, above mentioned approved, and whereas the following named persons:

J. Ben Burton, the owner of all the lands over which said proposed road has been laid out has consented to give the right of way for said proposed road, and has executed to the county of Santa Barbara his deed therefor, and the same having been accepted, and it further appearing that the opening of said road is necessary for public convenience, and that the same will be a great public benefit. It is now ordained and ordered that said road be, and the same is hereby declared a public highway and established as such in Road District No 5 in the fifth township County of Santa Barbara, State of California, on the following described route; Twenty-five feet on each side of the following described line; commencing at a red oak stake 2 x 3 in. sq. and 3 ft long marked L.P.R. 1 from which station No 34 of the county road leading from the town of Lompoc to Guadalupe bears S. 34 3/4 E. 21.57 chains distant and running thence N. 53 1/2 E. 251.

(Page No.) 251.

Ordinance No. 22.

87.47 chains to a redwood stake marked L.P.R. no. 2, N. $82 \frac{3}{4}^{\circ}$
W. 93.43 " " " " " " " " " 3. N. $38 \frac{1}{2}^{\circ}$
W. 170.46 " " " " " " " " " 4. N. 75°
W. 7.20 " " " " " " " " " 5. S. $67 \frac{1}{2}^{\circ}$
W. 4.33 chains to a redwood stake marked L.P.R. No. 6 N. $67 \frac{1}{2}^{\circ}$
W. 13.34 " " " " " " " " " 7. S. 84°
W. 11.77 " " " " " " " " " 8. S. $52 \frac{1}{2}^{\circ}$
W. 22.00 " " " " " " " " " 9. N. 79°
W. 2.67 " " " " " " " " " 10. S. $80 \frac{3}{4}^{\circ}$
W. 4.80 " " " " " " " " " 11. N. $35 \frac{3}{4}^{\circ}$
W. 3.15 " " " " " " " " " 12. S. $74 \frac{1}{2}^{\circ}$
W. 12.39 " " " " " " " " " 13. N. $87 \frac{1}{2}^{\circ}$
W. 9.42 " " " " " " " " " 14. S. $32 \frac{3}{4}^{\circ}$
W. 2.42 " " " " " " " " " 15 from which

a post on the north line of the Steamship's Co's land
bears S. $32 \frac{3}{4}^{\circ}$ W. 25 feet distant; S. $51 \frac{1}{2}^{\circ}$ E. 5.25 chains
to a redwood stake marked L.P.R. No. 16; S. $40 \frac{1}{2}^{\circ}$ W. 8.32
chains to a redwood stake marked L.P.R. No. 17, to the
middle of the county road leading from Longoc to Longoc
Landing from which a post at the S.E. corner of the Steamship
Co's land bears N. $51 \frac{1}{2}^{\circ}$ W. 25 feet distant.

This ordinance shall take effect and be in force on and
after the 20th day of April 1889, and a copy thereof shall
be printed and published in the Longoc Record, a newspaper
printed and published in said Santa Barbara County for at
least one week before said date. Passed and adopted this

2nd day of April 1889. H.G. Crane, Chairman
of the Board of Supervisors of Santa Barbara
County, California.
Attest: F.L. Kellogg, Clerk.
Filed this 2nd day of April 1889. F.L. Kellogg, Clerk.
(Seal). (Page No.) 252.

Appendix 11

**RESOLUTION NUMBER 15026 - ORDER TO ABANDON
[CERTAIN ROADS IN THE CAMP COOKE MILITARY RESERVATION]
Santa Barbara County Surveyor's Office**

ORDER TO ABANDON
Resolution No. 19026

The resolution of the Board of Supervisors of the County of Santa Barbara No. 18956, in the above entitled matter, coming on regularly to be heard, and it appearing that said resolution was duly passed and adopted by the said Board of Supervisors on the 24th day of October, 1955, that the whole of the property affected is situated in the Fourth and Fifth Supervisorial Districts of said County; that said 24th day of October, 1955, an order was duly made by this Board fixing for the 21st day of November, 1955, at 10:00 a. m. as the date and time for hearing said resolution, at the meeting room of said Board of Supervisors in the County Court House, City of Santa Barbara, County of Santa Barbara, State of California, and providing that notice of the time and place fixed for hearing said resolution be given to all freeholders in said Fourth and Fifth Supervisorial Districts by publication of said resolution in the Lompoc Record, a newspaper of general circulation published in said County, for at least two weeks prior to said hearing, and that similar notice be posted conspicuously along the line of the highways proposed to be abandoned; that said notice has been duly given; published and posted as prescribed by the aforesaid order, and that affidavits of such publication and posting have been filed herewith and it further appearing that said hearing having been had and evidence having been given and received, and it appearing that all the allegations and statements contained in said resolution are true;

And it further appearing from the evidence submitted that portions of county highways described in said resolution are unnecessary for present or prospective

November 21st, 1955.

positive public use and are no longer required for said purposes;

IT IS, THEREFORE, HEREBY ORDERED that the portions of County highways known as Lompoc-Casmalia Road, San Antonio Road, Surf-Honda Road, Lompoc Landing Road, Pine Canyon Road, Santa Lucia Road, Rodeo Canyon Road, Miguelito Road, Honda Road, Bear Creek Road (Road No. 40), and those certain roads numbered 24, 27, 32, 34, 35, 36, 37, 38 and 39, as shown upon the map of the Ranchos Lompoc and Mission Vieja filed in Book 1, page 45, Maps and Surveys in the office of the County Recorder of Santa Barbara County, California, in the Fourth and Fifth Supervisorial Districts, County of Santa Barbara, State of California, be, and the same are hereby, vacated, discontinued, abandoned, and abolished, to-wit:

All those portions of the Lompoc-Casmalia Road within the boundaries of the Camp Cooke Military Reservation lying northerly of the northerly terminus of the right of way described in the Deed to County of Santa Barbara recorded in Book 461, page 176 of Official Records, Santa Barbara County Recorder's office and outside of the boundaries of the present travelled road.

All those portions of the San Antonio Road lying within the boundaries of the Camp Cooke Military Reservation.

All those portions of the Surf-Honda Road lying within the boundaries of the Camp Cooke Military Reservation and outside the boundaries of the present travelled County Road,

125
cont. northerly terminus of the right of way described in the Deed to County of Santa Barbara recorded in Book 461, page 176 of Official Records, Santa Barbara County Recorder's office and outside of the boundaries of the present travelled road.

All those portions of the San Antonio Road lying within the boundaries of the Camp Cooke Military Reservation.

All those portions of the Surf-Honda Road lying within the boundaries of the Camp Cooke Military Reservation and outside the boundaries of the present travelled County Road.

All of the Lompoc Landing Road as described in the Deeds to County of Santa Barbara, recorded in Book 272, page 483, Official Records, Book 316, page 208, Official Records and Book 1, page 253 of Deeds and that portion established as a County Road by Resolution No. 820, recorded in Book 275, page 134, Official Records, Santa Barbara County Recorder's Office.

All those portions of Pine Canyon Road established as a County Road by Order of the Board of Supervisors dated February 10, 1876, and by Deed recorded in Book 133, page 444 of Deeds, lying outside of the boundaries of the present Lompoc-Casmalia Road.

All those portions of Santa Lucia Canyon Road established as a County Road by Ordinance No. 120 adopted by the Board of Supervisors July 14, 1890.

All that portion of Rodeo Valley Road (Rodeo Canyon Road) also called La Salle Road and referred to as Road 31 according to Book "S", page 204 of Deeds and declared a public highway by Ordinance No. 251, dated April 1, 1901 and Ordinance No. 347, dated November 9, 1910, lying within the boundaries of the Camp Cooke Military Reservation.

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All those portions of Miguelito Road (Road No. 27, also known as Honda Road), as dedicated to the County of Santa Barbara by Deed recorded in Book "S", page 138, et seq., of Deeds, Santa Barbara County Recorder's Office, and established by Ordinance No. 23, 34 and 123, lying within the boundaries of the Camp Cooke Military Reservation.

All of Bear Creek Road (Road No. 40) as dedicated to the County of Santa Barbara according to map filed in Book 1, page 45, Maps and Surveys and Deed recorded in Book "S", page 138 of Deeds in the office of the County Recorder of Santa Barbara County, California.

All of Roads numbered 24, 27, 32, 34, 35, 36, 37, 38 and 39 as indicated upon the map of the Ranchos Lompoc and Mission Vieja filed in Book 1, page 45, Maps and Surveys, Santa Barbara County Recorder's office, lying within the boundaries of the Camp Cooke Military Reservation.

Excepting therefrom all those portions of the above described roads lying within the boundaries of the Southern Pacific Railroad right of way.

provided that all existing rights to maintain, alter, replace, repair and remove the utility installations of any sort whatsoever located in, on, under and over the county highways shall not be affected by this abandonment, but on the contrary are hereby reserved and excepted from said abandonment.

Passed and adopted by the Board of Supervisors of the County of Santa Barbara, State of California, this 21st day of November, 1955, by the following vote:

Ayes: C. W. Bradbury, Paul E. Stewart, W. N. Hollister, and

R. B. McClellan

None: None

Absent: A. E. Gracia

Appendix 12

VISIT OF INSPECTION TO CAMP COOKE, CALIFORNIA 1943
U.S. Army Military Institute, Carlisle Barracks, PA.

File.-

Date -

SUBJECT: Visit of Inspection to Camp Cooke, California, and the Hunter-Liggett Military Reservation, California.

TO: Commanding General, Fourth Army, Presidio of Monterey, California.

1. Officers from this headquarters visited Camp Cooke, California, and the Hunter-Liggett Military Reservation, California. The following comments are made constructively for your information and such action as you desire.

2. 6th Armored Division.

a. The night combat firing problem ~~(involving a limited objective attack of a medium tank company, two infantry companies, a battery of artillery, and engineers, through a minefield)~~ conducted by GCP, was outstanding generally. ~~(particularly in the following respects)~~

- (1) The tactical concept and technique were sound, i.e., accurate reconnaissance; careful coordination, control, and planning; daylight rehearsal; seizure of objective sufficiently prior to daylight to provide the opportunity to organize it against a counterattack at daylight; use of tracer ammunition and smoke to indicate direction; and creation of diversion by noise and flares.
- (2) The careful marking of gaps in the minefield by colored lights and guides.
- (3) The movement of infantry on the back of the tanks, through and beyond the minefield.
- (4) The delivery of the maximum fire from the tanks as they moved forward slowly, followed closely by the infantry, in the final phase of the attack.

f. Coordination between tanks and infantry on the objective was excellent.

g. "Firing in" with tracer ammunition shortly after daylight demonstrated that fires had been coordinated. The position had been organized well in darkness except that troops were not disposed in sufficient depth.

h. The artillery registration, in preparation for the night problem, ended in an unsatisfactory adjustment. The officer firing did not follow proper procedure, and forced a solution by sending four or five rounds that were definitely not sensible. He finished with a deflection bracket of about ten mils.

i. The reconnaissance platoon night problem conducted by Tr A, 66th Recon Sq, was planned and executed well. The problem evidenced detailed preparation and the performance of the patrols indicated the troop had been receiving efficient and practical instruction in night patrolling. (Night 22-23 November)

j. In the moving vehicle record firing being conducted in the Hq and Serv Cos, 68th Tank Bn, targets were not arranged in accordance with provisions of FM 22-30. Crews did not observe targets after completing a run. Holes in targets were not pasted, but were marked with a colored pencil. Scores observed were barely satisfactory. (221330)

k. The unarmed combat training of Tr A, 68th Recon Sq, lacked snap and aggressiveness. There was much laughing and little fighting spirit. (221410)

l. The condition and display of machine guns, mortars, tools

and small arms parts were excellent in POX inspection of Tr A, 86th Rcn Sq. (221435)

k. Record carbine firing conducted in Tr C, 86th Rcn Sq, was organized well. Positions and scores observed were good. Score books were not used and too many "alibi runs" were fired. (221510)

n. Instruction carbine firing of the Div Hq Co was organized poorly and little discipline existed on the firing line. Coaching, positions, and results were poor generally. (221525)

o. The officer in charge gave little instruction to a small group, Troop E, 86th Rcn Sq, in throwing fragmentation grenades. He permitted any style of throwing and made no corrections. He appeared interested only in finishing the training as soon as possible. (221500)

3. 2d Filipino Bn.

a. Massed games were scheduled in the 2d Bn for the entire morning (22 November).

b. The lecture on security being conducted by the company commander, Co B, was not prepared or presented well. Various unrelated points were discussed and excerpts of G-2 reports on operations that were read had little bearing on the subject. (221000)

c. Other units of the regiment were observed cleaning equipment. Many men were standing around in small groups talking; others were wandering around the area.

d. Although the regiment was scheduled to move into the field for a problem during the afternoon, more profitable training might have been conducted during the morning

e. The conduct of a march by elements of the 1st Bn was poor. Groups were walking at a rate of about 0.5 MPH with frequent halts. Distance between elements was not maintained. (221400)

4. 775th Tank Destroyer Battalion. A conference on antitank gunnery methods given by the battalion commander was excellent. Greater benefit might have been derived if the conference had been given to smaller groups. (221040)

5. 130th and 170th Field Artillery Battalions.

a. The gun target ranges used in Test I (5000 - 7700 yds) made it more difficult than desired. The test should be arranged so that all targets throughout the depth of the target area can be attacked with either ricochet or time shell (using 154 or 155 fuses) without changing either propellant or projectile lots. Height of burst probable errors when a long time of burning is used make time adjustments and photomap transfers more difficult than desired. Frequently the first round from a cold gun is erratic and when fire from non-adjusting batteries appears to be erratic due to this cause, umpires should cause additional essential rounds to be fired.

b. Targets in Test I were indicated by white panels. Panels should be used only when natural targets are not available.

c. Position area, Test I, for the 130th FA Bn, extended about 1200 yards laterally and 1000 yards in depth. The extent of the 170th FA Bn position area was only slightly less. These conditions also made the test more difficult than desired.

d. Conditions for Test III were logical and satisfactory.

Photographs of high quality were supplied in ample quantities.

e. The photomap provided for Test II was inadequate for the purpose.

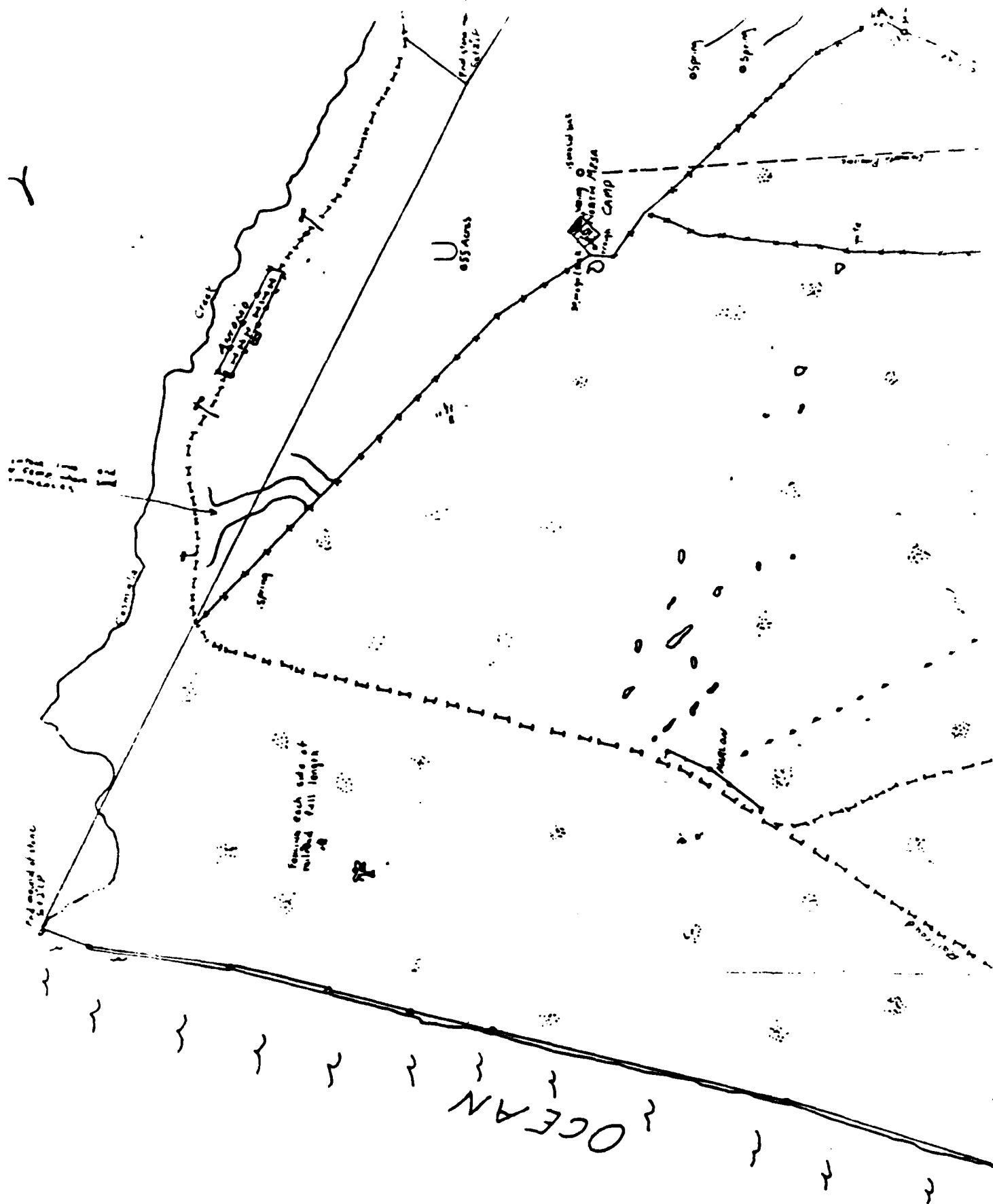
f. Problems observed fired in Test I, 130th FA Bn, were characterized by an excessively slow delivery of fire by firing batteries, failure to appreciate the characteristics of ricochet and time shell fire, and hesitancy and indecisiveness upon the part of officers conducting fire. Problems observed fired in Test I, 170th FA Bn, proceeded smoothly and quickly. The march of this battalion to its assembly area, and its dispersal, camouflage, and security measures in the assembly area were superior.

g. Survey computations in Test III, 130th FA Bn, delayed delivery of fire $5\frac{1}{2}$ hours after batteries occupied and organized positions. Survey was in error and firings were inaccurate. Firing data, 170th FA Bn, were computed when batteries had organized positions. Occupation of position by Battery C, 170th FA Bn, and the organization and functioning of the fire direction center were outstanding. The two concentrations fired by this battalion prior to the registration were delivered with M3 fuses set "Delay." Following the registration, ricochet effect was again attempted. It was evident that earnest efforts were being made to comply with directives from this headquarters, but that instruction in the use of time and ricochet fire has been inadequate.

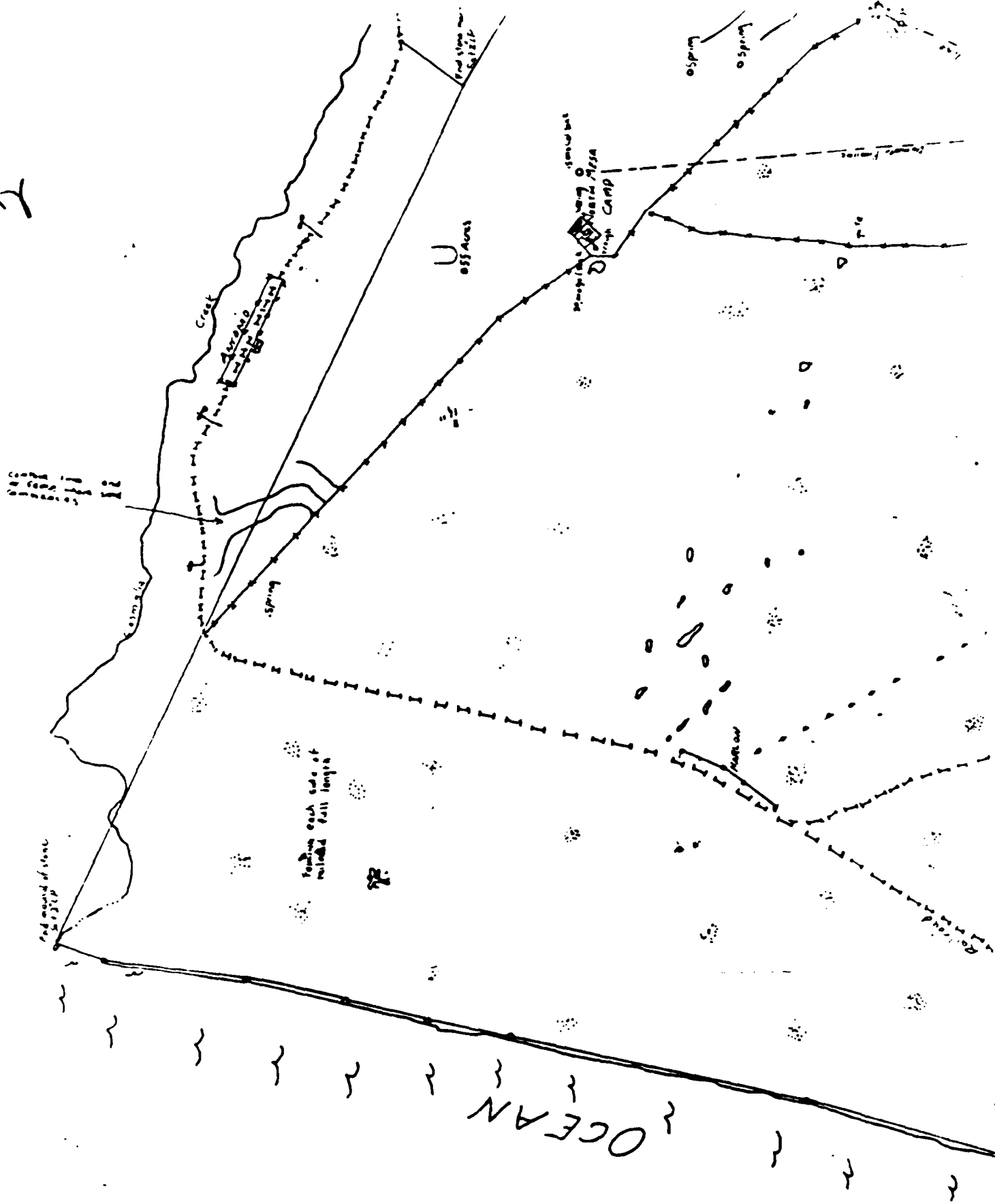
h. Enlisted personnel of both units appeared to be well disciplined and to have high morale. Men in the 170th FA Bn seemed to

be well trained. Camouflage, concealment, and communications in both units appeared to be satisfactory.

L. J. VORHIES,
Lt. Gen., U.S.A.,
Commanding.

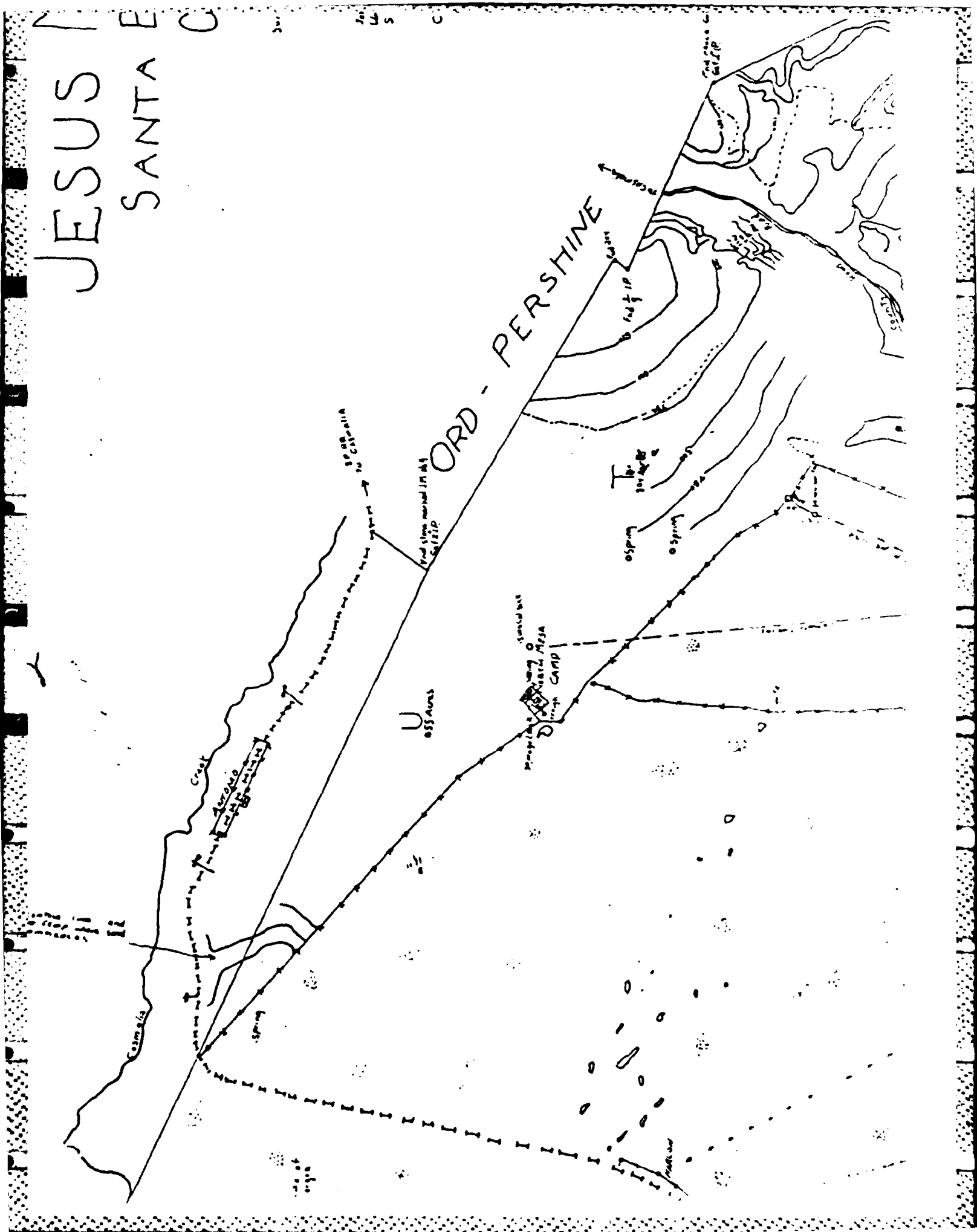


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JESUS
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SANTA BARBARA
CALIFORNIA

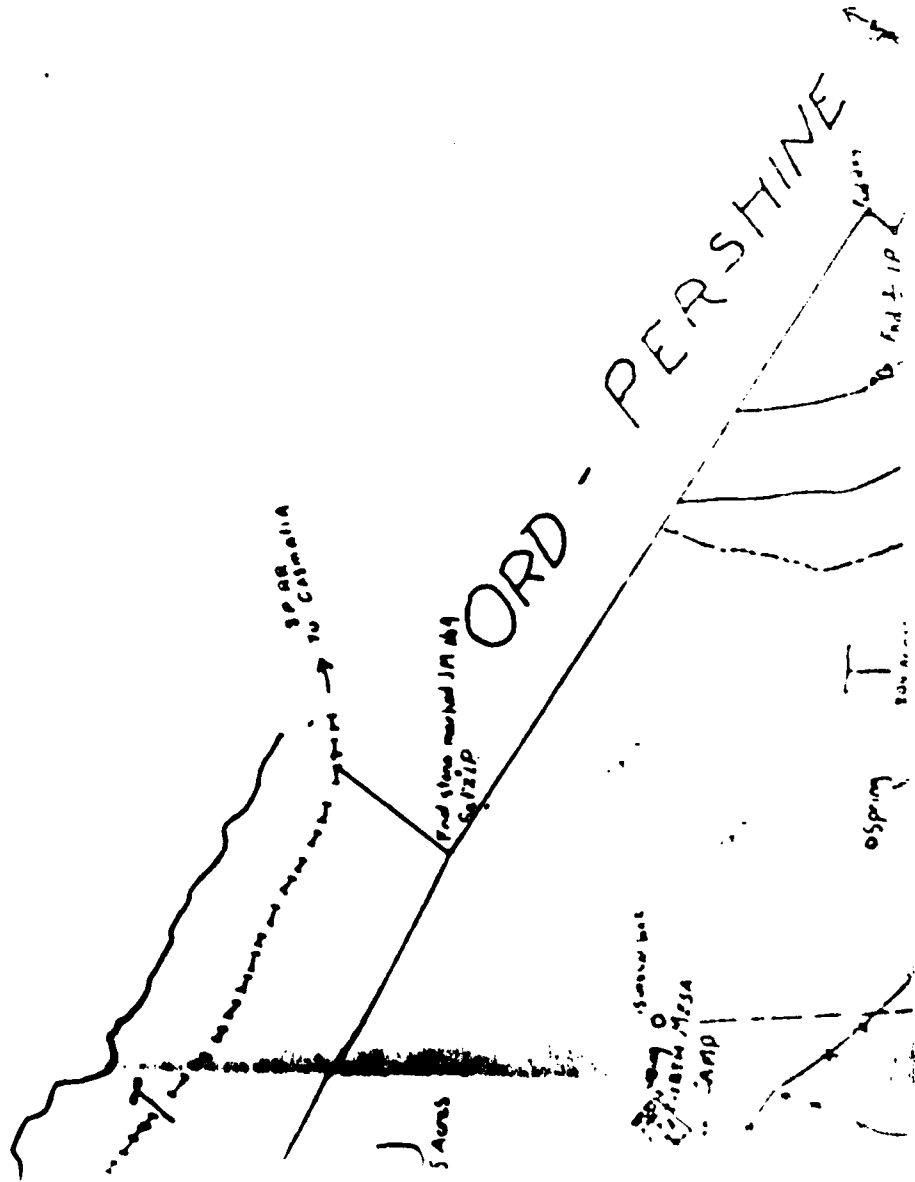
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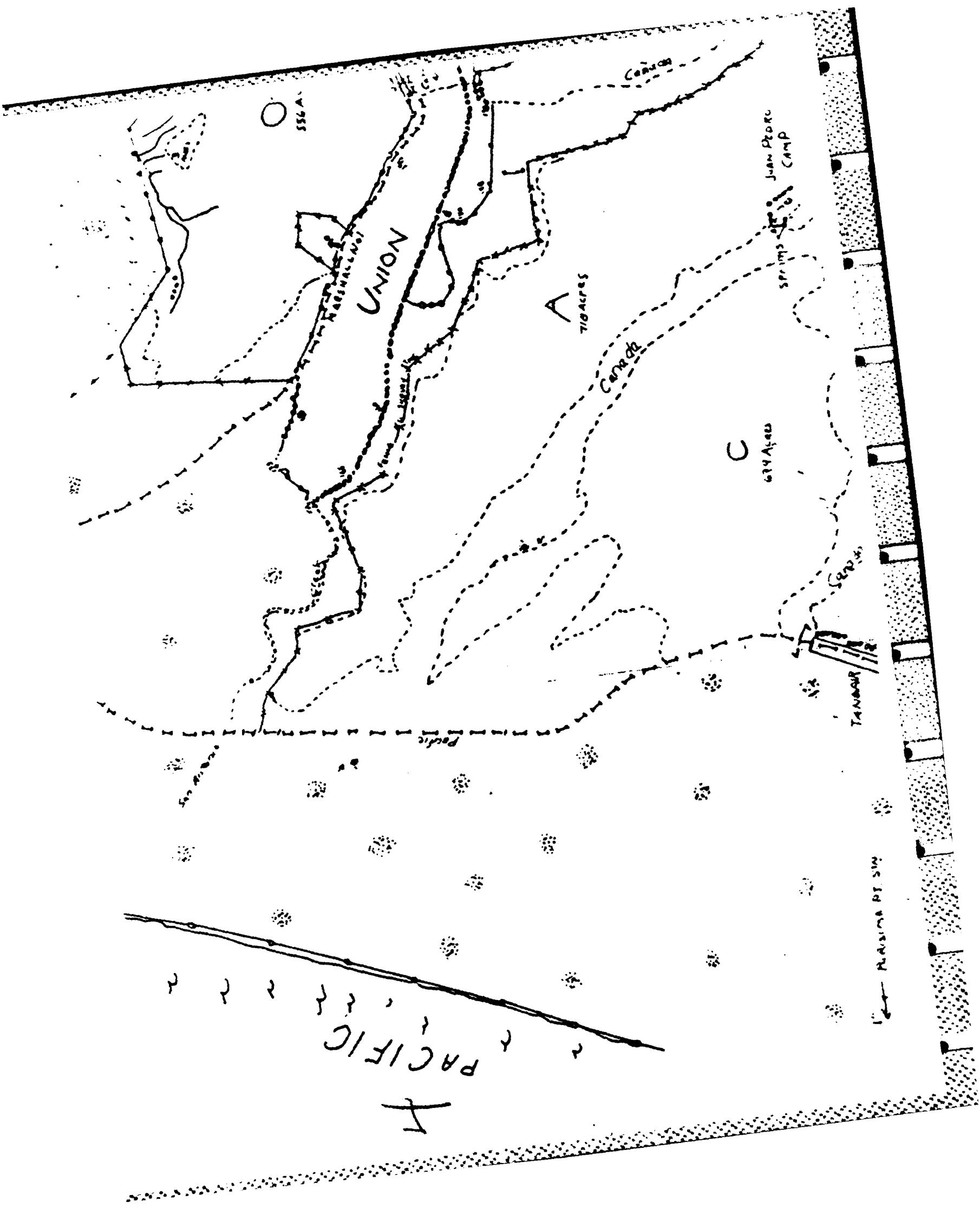
Survey BY LM Proct 1923

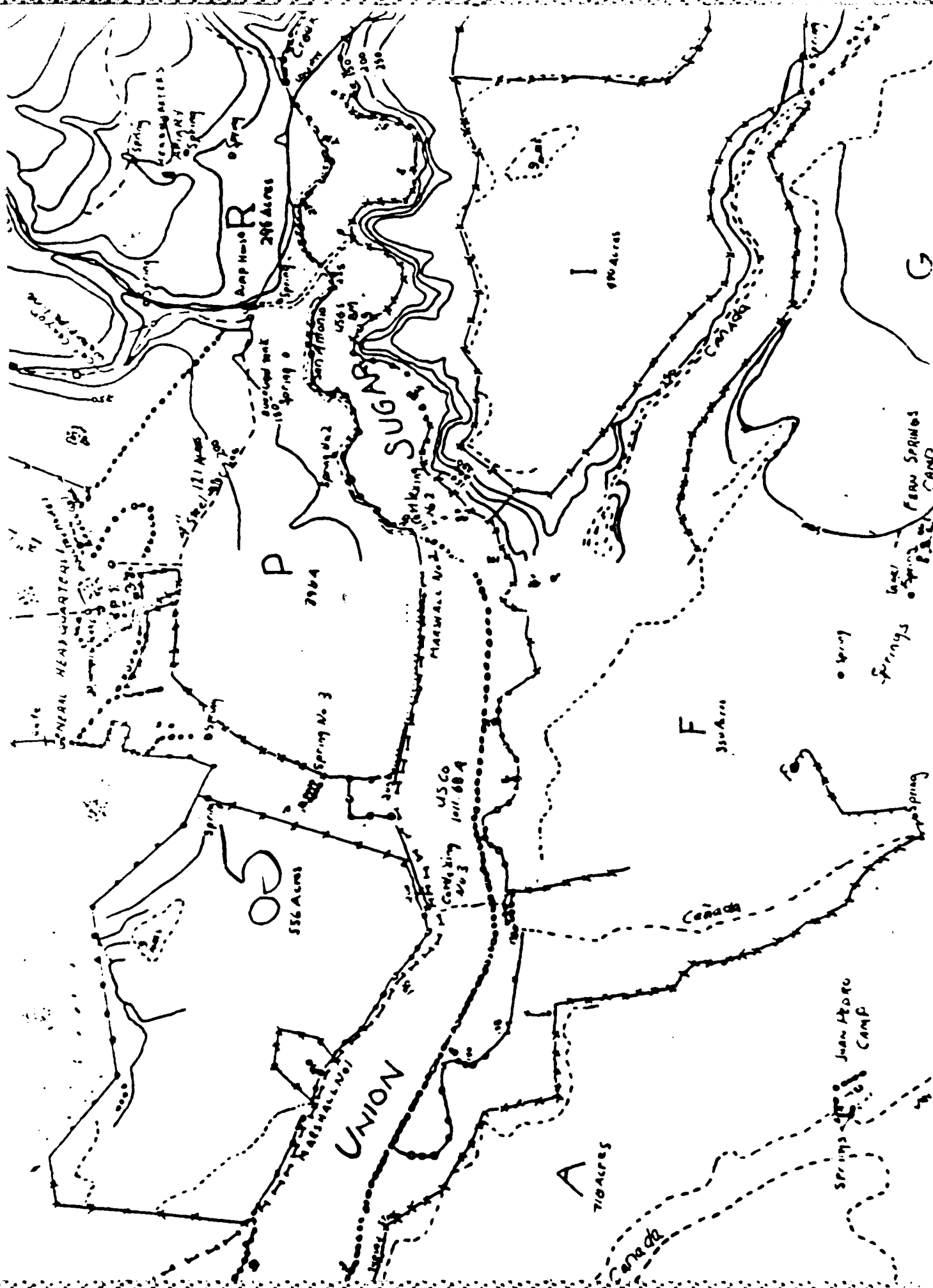
Average

Jean Maria Ranches (Net)	33141.81
Union Sugar Co.	1024.89
S P R R Co	12145
Total	34288.15

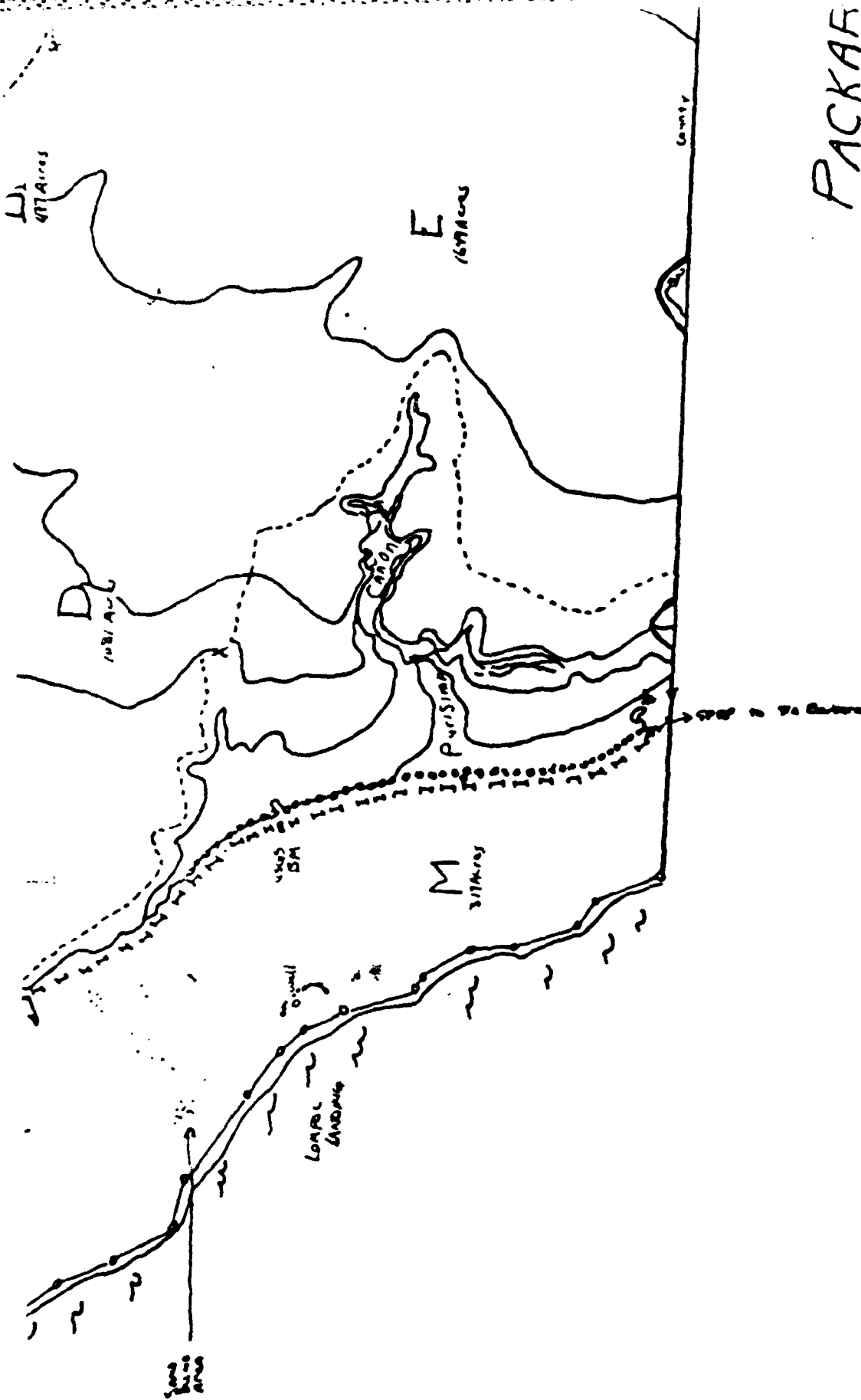
Contour Interval 10'.







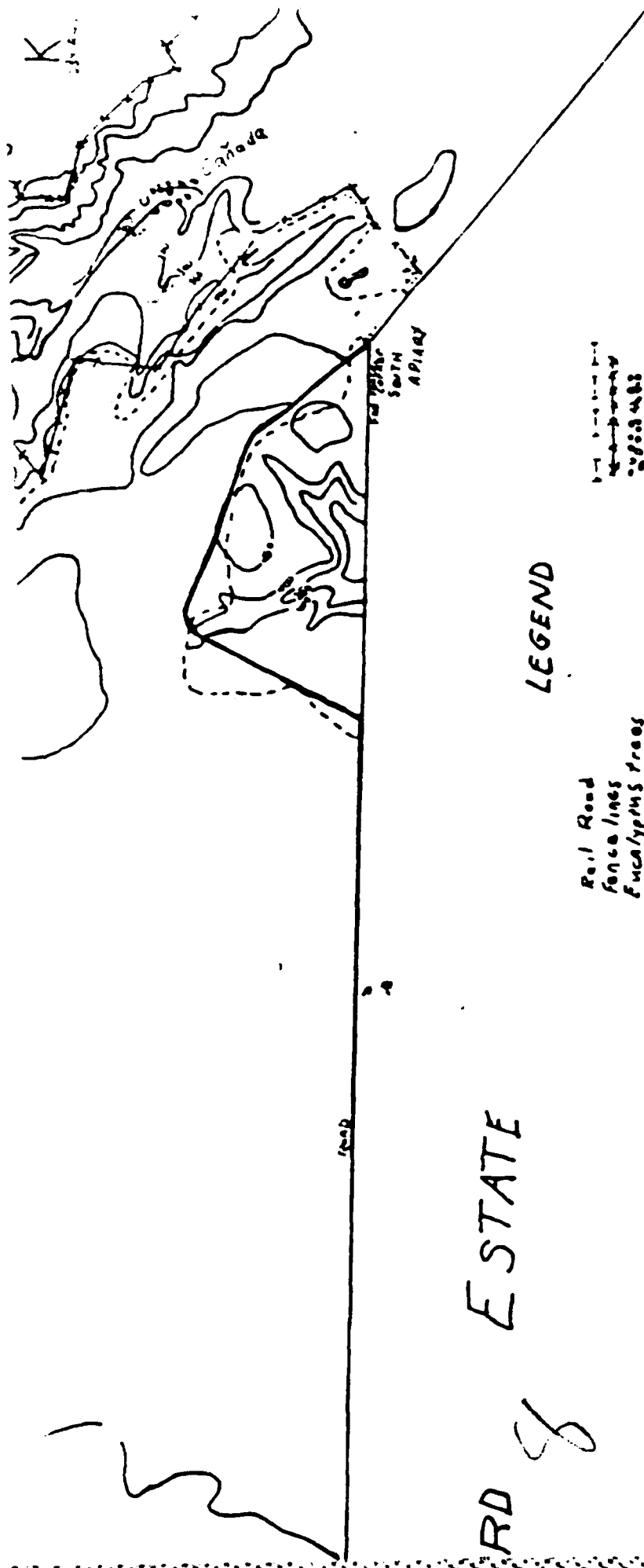
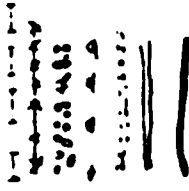
PACKAF



RD 8 ESTATE

LEGEND

- Rail Road
- Fence lines
- Eucalyptus trees
- Telephone lines
- Roads private & local
- County Roads (two lanes)
- County Roads (four lanes)



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